Assessment of the Contraceptive Market in India

May 1997

Ruth R. Berg
Anton Schneider
Neeraj Kak
Victoria Baird

CONTENTS

ACKNOWLEDGMENTS

The authors gratefully acknowledge the valuable comments on earlier drafts of this report from William Goldman (USAID/India), Sheena Chhabra (USAID/India), and Lucia Tabor (USAID/India). Special appreciation also goes to John Stover (The Futures Group International) and Fred Arnold (Macro International) for their thoughtful comments and suggestions regarding Section II and Section III. David McGuire (The Futures Group International) and S.S. Modkar (The Futures Group International) provided key sources of information needed to complete this report. Their assistance and support is gratefully acknowledged.

EXECUTIVE SUMMARY

I. Overview

The main purpose of this report is to summarize currently available information with respect to 1) the size of the market for temporary contraceptive methods, 2) potential barriers to the increased use of temporary contraceptive methods, and 3) mass media capabilities. The principal audience for this report comprises private sector contraceptive manufacturers, selected advertising agencies, the Program for the Advancement of Commercial Technology-Child and Reproductive Health (PACT-CRH), and the Industrial Credit and Investment Corporation of India (ICICI). The report is intended to serve as a background document in a collaborative effort to expand private sector sales of high quality, affordable, modern temporary contraceptive methods and to increase knowledge and use of modern temporary methods.

II. Market Size: Past, Present, and Future

While sterilizations have dominated the Indian contraceptive market to date, recent trends in the use of temporary contraceptive methods coupled with the stated preferences of potential future contraceptive users suggest that there is substantial potential for the market for temporary methods to expand:

- Contraceptive use has grown from 10% in 1978 to approximately 41% today
- Thirty one percent of women not currently using a contraceptive method who intend to use in the future plan to use temporary methods, compared to 14% who use temporary methods today
- A conservative scenario of future demand based on current patterns of contraceptive use projects the size of the market for modern temporary methods to grow from 9 million users in 1992-3 to 29 million users by 2011
- A more ambitious scenario based on the intentions of potential future contraceptive users projects the size of the market for modern temporary methods to grow to 40 million users by 2011

Most of the growth in the demand for pills and condoms will occur in the private sector (commercial and social marketing combined). Currently, about 80 percent of condom users and 68 percent of pill users purchase their method from private sector providers. The share of private sector purchases that are commercial is 34% for pills and 45% for condoms. Non-users who intend to use a temporary contraceptive method in the future strongly favor the pill, especially in rural areas. An expansion of commercial distribution coupled with a strong communications campaign would further expand the commercial market for both pills and condoms.

In the case of IUDs, 37.4 percent of IUD users receive their method from the private commercial sector, and 62.6 percent receive their method from the public sector. If current trends in method-specific prevalence continue, the number of IUD users can be expected to double between 1992-93 and 2011. On the other hand, if current non-users who intend to use in the future use methods according to their stated preferences, the number of IUD users can be expected to triple between 1992-93 and 2011.

Little is currently known about the demand for injectables. However results from the 1992-93 National Family Health Survey (NFHS) and other research indicate that there is a modest level of awareness and interest in using this product. If even half of the number of women who said in the NFHS that they intend to use injectables actually do purchase them, the number of private sector injectable users would be expected to approximate 1 million women by 2011. A well-designed communications campaign combined with active distribution would further increase demand for this method.

III. Potential Barriers to Greater Temporary Method Use: Assessment and Marketing Implications

Whether the growth trajectory for the temporary method market follows a more conservative or a more ambitious course will depend partly on the extent to which key stakeholders address existing barriers to temporary method use. Potential barriers to increased use by method type are as follows:

Condoms

- Low levels of knowledge and awareness (rural women only)
- Lack of widespread availability coupled with a high level of awareness among men that condoms are not readily available
- Embarrassment with respect to purchase
- Policies (advertising restrictions, tax, and government subsidy)

Pills

- Lack of awareness (rural sector only)
- Lack of availability beyond pharmaceuticals
- Incorrect consumer knowledge regarding use (which contributes to psychological barriers to use)
- Perceptions of negative side effects among non-users and providers
- Policies (advertising restrictions, tax, and government subsidy)

IUDs

- Lack of awareness (rural sector only)
- Fear of the method
- Incorrect consumer knowledge regarding use
- High price in private sector
- Limited cadre of trained private sector providers
- Policies (advertising restrictions and tax)

Injectables

- Lack of awareness
- Myths
- High price
- Lack of perceived and actual availability
- Policies (opposition among key influentials, advertising restrictions, government approval for public sector distribution and tax, distribution limited to physicians)

The marketing implications associated with the barriers outlined above are as follows:

Condoms

- Expand distribution beyond chemist shops, especially in rural areas
- Reduce embarrassment surrounding purchase by using social marketing approaches that have been successful in other countries (e.g., the promotion of condoms with other routinely purchased items such as razor blades)
- Develop advertising campaign designed to attract new users
- Work with government officials to remove advertising restrictions and taxes

Pills

- Develop well focused communications campaign that addresses myths and rumors and emphasizes the safety, convenience and effectiveness of pills for family planning
- Address incorrect knowledge with respect to correct use through communication campaigns and low literacy inserts
- Greatly expand distribution outside of pharmaceutical networks

IUDs

-
- Develop well focused communications campaign that addresses the most common concerns about IUDs as well as raise awareness
- Lower price of device and insertion
- Eliminate excise taxes on packaging
- Collaborate with other projects and donor agencies to address the lack of sufficiently trained private sector service providers
- Work with government officials to remove advertising restrictions

Injectables

- Develop a strong advertising campaign that will educate consumers about the convenience, safety and effectiveness of injectables
- Address concerns of key influentials (e.g., feminist groups) through a well planned media and PR campaign to promote correct information and dispel myths and rumors
- Train providers so that they may provide proper screening and counseling
- Negotiate best consumer price
- Eliminate excise taxes on packaging
- Work with government officials to remove advertising and distribution restrictions

IV. Media Assessment

The Indian marketplace offers unique challenges for any marketing activity. Its size and complexity coupled with the enormous growth of private sector economic activities in recent years have resulted in fierce and growing competition among consumer products. As a consequence, family planning messages must aggressively compete for consumer "mindshare". If the market for family planning products and services is to grow and flourish, development and placement of media messages must be sophisticated, memorable, and well-targeted.

Key potential barriers to greater temporary method use in India include lack of awareness, incorrect knowledge, and myths and rumors. These are all issues that a mass media campaign is particularly well suited to address. The target for the PACT-CRH project is to achieve extensive distribution (penetration of the market). To develop an effective distribution strategy, it is important to be as specific as possible with respect to distribution targets and with respect to how efficiently the media can support those targets:

- 85% of urban India and 49% of rural India can be reached through some form of mass media

- Television is the medium with the greatest reach in both rural and urban sectors (32% and 74% respectively), regardless of town or village size
- While television is key to the development of an effective communications campaign, radio has two important advantages: 1) relatively low cost and 2) its ability to broadcast programming and commercials in local languages and dialects
- The importance of radio as a secondary medium is greatest in rural areas

I. OVERVIEW

PURPOSE

The main purpose of this report is to summarize currently available information with respect to 1) the size of the market for temporary contraceptive methods, 2) potential barriers to the increased use of temporary contraceptive methods, and 3) the relative strengths and weaknesses of different mass media for the purpose of developing an effective communication campaign. The report is intended to serve as a background document for members of the Program for the Advancement of Commercial Technology-Child and Reproductive Health (PACT-CRH), the Industrial Credit and Investment Corporation of India (ICICI), private sector contraceptive manufacturers, and selected advertising agencies. With the exception of the projections presented in Section II, all of the information provided in this report is from previously published research.

BACKGROUND

The PACT-CRH Program is managed by ICICI and funded by USAID, with technical assistance from The Futures Group International (FUTURES). The objectives of the PACT-CRH Program are to 1) expand access to quality contraceptives, reproductive health and child health products and services through the private sector; 2) broaden the range of quality temporary family planning methods; and 3) promote the commercialization of technologies related to health, AIDS prevention, child survival and contraception.

In the effort to meet these objectives, the PACT-CRH Program, ICICI, private sector contraceptive manufacturers/distributors and FUTURES will collaborate in a project specifically designed to 1) expand sales of high quality, affordable, modern temporary contraceptive methods beyond the existing distribution networks and 2) increase knowledge and use of modern temporary methods. This report is meant to support this effort by providing a common reference for information on the size of the market for temporary methods, the potential barriers to greater use of temporary methods, and mass media capabilities.

ORGANIZATION OF THIS REPORT

This report is organized as follows: Section II provides an overview of past trends and current estimates of the size of the market for contraceptives and an analysis of the potential demand for temporary methods in the future. Section III reviews available data to assess four types of potential barriers to the use of temporary methods: 1) knowledge and awareness; 2) attitudes and perceptions; 3) access (i.e, availability and price); and 4) policy. Section IV assesses the relative strengths and weaknesses of different mass media in terms of cost and ability to reach the consumer.

II. MARKET SIZE: PAST, PRESENT AND FUTURE

Clinic-based contraceptive services in India were introduced in the early 1950s, making India's official family planning program the world's first. After modest beginnings, the proportion of couples in India aged 15-49 who practiced some form of contraception increased dramatically from approximately 10 percent in 1970-71 to an estimated 40.6 percent in 1992-93 (Ministry of Health and Family Welfare 1993; National Family Health Survey 1992-93). While sterilizations have dominated the Indian contraceptive market to date, recent trends in the use of temporary contraceptive methods coupled with the stated preferences of potential future users suggest that there is substantial potential for the market for temporary methods to expand. This section provides an overview of past trends and current estimates of the size of the market for contraceptives and an analysis of the potential demand for temporary methods in the future.

CURRENT ESTIMATES AND PAST TRENDS

The size of the contraceptive market can be estimated either from information about contraceptive use as reported by individual users or from information about contraceptive distribution as reported by manufacturers and/or service providers. Each approach has its strengths and weaknesses. Data on contraceptive use provide estimates of the number of people who actually *use* a given product. Distribution data, on the other hand, provide information about the number of products that are distributed, but not necessarily purchased or used. In general, data on contraceptive use and data on distribution should yield similar estimates of market size. There are at least three important factors, however, that can lead to discrepancies between the two types of estimates.

First, in most countries data on contraceptive use refer only to use for family planning purposes among couples in union, while distribution data generally refer to products distributed for all purposes (i.e., disease prevention as well as pregnancy prevention) and to all types of individuals (i.e., single as well as married). Therefore, in countries where there is a relatively high level of sexual activity outside of marital union and/or a relatively high level of use for non-contraceptive purposes, data on contraceptive use will tend to under-estimate market size. In India, as in most countries, the level of sexual activity outside of union and the level of use of contraceptive products for non-contraceptive reasons is unknown. It is generally believed, however, that the need for condoms to prevent the spread of AIDS and STDs in India is growing (UNFPA 1995; World Bank 1996). Therefore data on reported use of condoms for contraceptive purposes is likely to underestimate the size of the total market for condoms in India.

A second source of discrepancy between market size estimates based on reported use and those based on distribution figures is wastage. If a relatively large number of contraceptive products are distributed but not actually used, distribution data will tend to over-estimate market size. This type of discrepancy is particularly a risk when a relatively large share of the distribution goes to the public, or "free", sector since consumers are presumably less likely to actually use products that they receive for free than products for which they themselves pay. Currently, 63 percent of

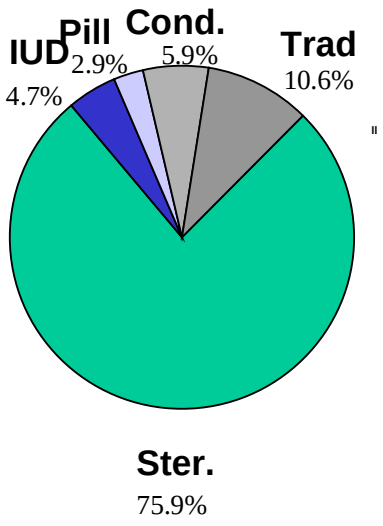
the distribution of pills and 71 percent of the distribution of condoms is to the public (free) sector (Ministry of Health and Family Welfare 1997).

A third source of discrepancy is misreporting. Under-reporting of self-reported use is a risk when there are either social norms or legal sanctions against the use of particular methods. For example, in many contexts use of condoms is associated with prostitution and/or disease and, as a result, users may be reluctant to report their use of this product. Misreporting may also occur in service statistics. For example, in countries, such as India until very recently, where service providers are expected to meet distribution targets, there is a risk of over-reporting the number of contraceptive services provided.

Market Size Estimates Based on Use

The 1992-93 National Family Health Survey (NFHS) provides an estimate of contraceptive use in India for 1992-93, the most recent year for which self-reported information on contraceptive use is available (International Institute for Population Sciences 1995). The NFHS estimates that in 1992-93, contraceptive prevalence was 40.7 percent. The distribution of contraceptive users by method type (i.e., the "method mix") is shown in Figure 1. The figure indicates that the share of all method use that can be attributed to temporary methods (i.e., IUDs, pills, condoms and traditional methods) in 1992-93 is estimated at 24.1 percent of all married women of reproductive age. The share of all methods that can be attributed to modern temporary methods (i.e., IUDs, pills and condoms) is 13.5 percent.

Figure 1. Method Mix, NFHS 1992-93

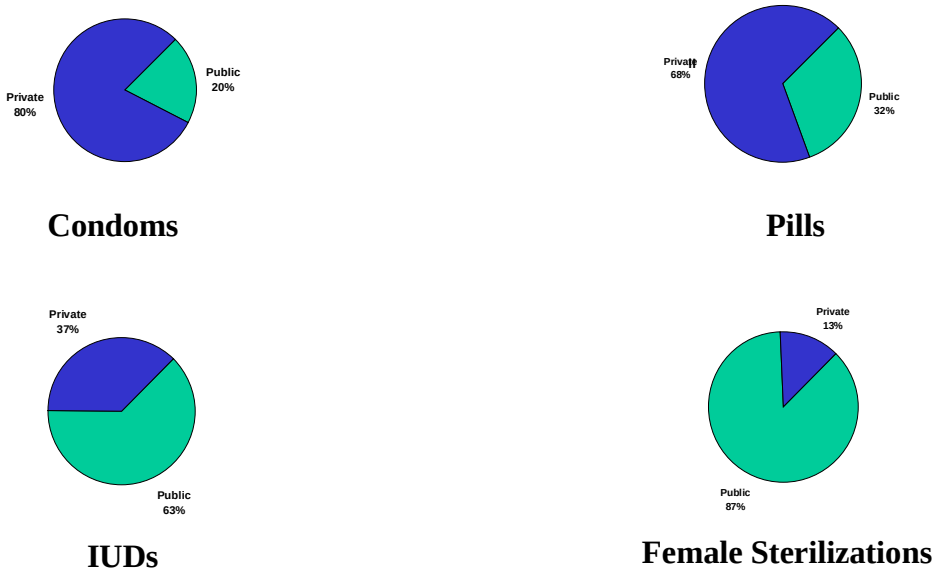


Source: International Institute for Population Sciences 1995

The 1992-93 NFHS data also provide estimates of contraceptive method use by self-reported source of supply. Figure 2 shows that, while the public sector is responsible for the majority of

female sterilizations and IUD insertions, the private sector (commercial and social marketing combined) dominates the provision of condoms and pills.[1,2]

Figure 2. Public and Private Sector Share of Market by Method Type: NFHS 1992-93



Source: International Institute for Population Sciences 1995

Information about contraceptive use by source of supply in combination with information about method mix can be used to derive estimates of market size (i.e., the number of users and unit sales) by method and by market sector. The total number of estimated users of contraception for the purpose of pregnancy prevention is estimated at 68.5 million couples.[3] If we distribute these women according to the types of methods that they use and by their reported source of supply, we obtain the total number of estimated users by method and source of supply. This information is summarized in Table 1.

[1] Note that information about source of supply for injections is based on fewer than 50 cases in the NFHS and is therefore not provided here.

[2] Note that we assigned women who named "other" as a source for pills and condoms to private and public sector categories in proportions consistent with the distribution of women who reported public or private sources. Also note that we assigned all women who named "shop" as a source for pills or condoms to the private sector.

[3] We derive this figure by multiplying the total estimated number of women of reproductive age in 1993 (217 million) by the total estimated proportion in union in 1993 (.775) and by the total estimated proportion using contraception in 1993 (.407). The number of women of reproductive age is taken from United Nations (1995) projections (interpolated); the proportion of women of reproductive age in union is taken from the 1992-93 NFHS; and the proportion of women of reproductive age who use contraception is taken from the 1992-93 NFHS.

Table 1. Total Number of Married Women Aged 15-49 (in Thousands) Who Use a Temporary Method by Method Type and Most Recent Source of Supply, 1992-93			
Source of Supply	Pill	IUD	Condom
Private	1351	1191	3233
Public	636	2028	808
Total	1987	3219	4041

Note: Information in this table is based on information on contraceptive use by source of supply from the 1992-93 NFHS; information on projected population size is from the United Nations (1995) medium variant projections.

In order to convert the number of users estimated in Table 1 to unit volume, we rely on the following Couple Years of Protection (CYP) factors: 15 cycles of pills per CYP, 144 condoms per CYP, and 4 injections per CYP.[4] We assume that the annual discontinuation rate for IUDs is 37.6 percent (MOHFW 1993). The CYP factors that we use for pills and injections reflect the standard recommended by USAID (forthcoming). By contrast, the CYP factor that we use for condoms represents the standard adopted in India and reflects assumptions specific to India about coital frequency and condom wastage. The unit volume that results from these calculations is shown in Table 2.

Table 2. Unit Volume (in Millions) to Married Women Aged 15-49 by Method Type and Most Recent Source of Supply, 1992-93			
Source of Supply	Pill Cycles	IUD Devices	Condom Pieces
Private	20.3	.5	465.6
Public	9.6	.9	116.4
Total	29.9	1.3	582.0

Note: Information in this table is based on information on contraceptive use by source of supply from the 1992-93 NFHS; information on population size is from the United Nations (1995) medium variant projections (interpolated); CYP factors as discussed in text are used to convert number of users to unit volume.

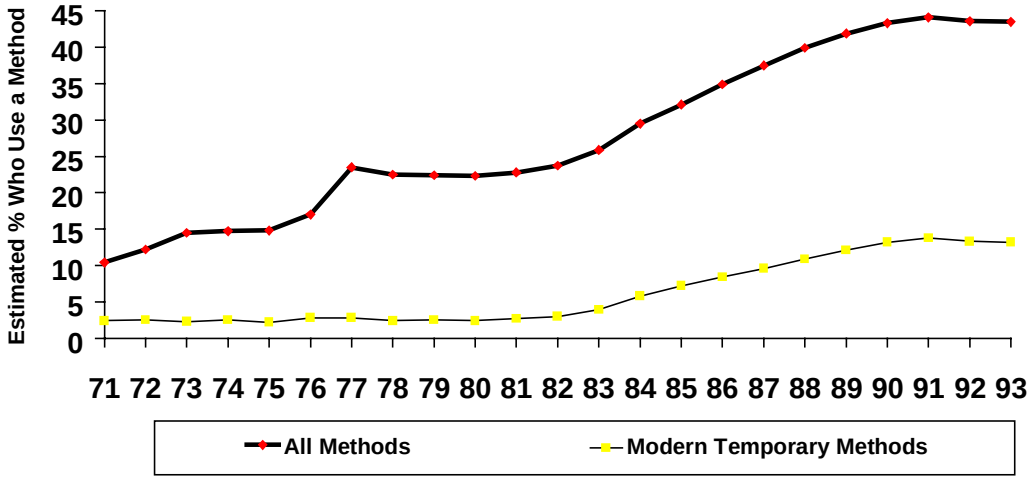
Market Size Estimates Based on Distribution

Distribution as Reported by Service Providers

Figure 3 shows the estimated trend in contraceptive use based on service statistics (i.e., service provider reports of contraceptive products distributed and contraceptive services provided). Service statistics are converted to levels of contraceptive use with CYP conversion factors and assumptions about annual attrition (see MOHFW 1993). Figure 3 shows that the estimated percentage of couples who use some type of modern contraceptive method has risen almost steadily from approximately 10.4 percent in 1970-71 to 43.5 percent in 1992-93. By comparison, use of all temporary methods (including traditional) is estimated to have risen from approximately 2 percent of all eligible couples in 1970-71 to 13.3 percent in 1992-93.

[4] The CYP factor for injections assumes that the injection type is Depo-Provera.

Figure 3. Contraceptive Use as Estimated from Service Statistics: 1970-71 to 1992-93



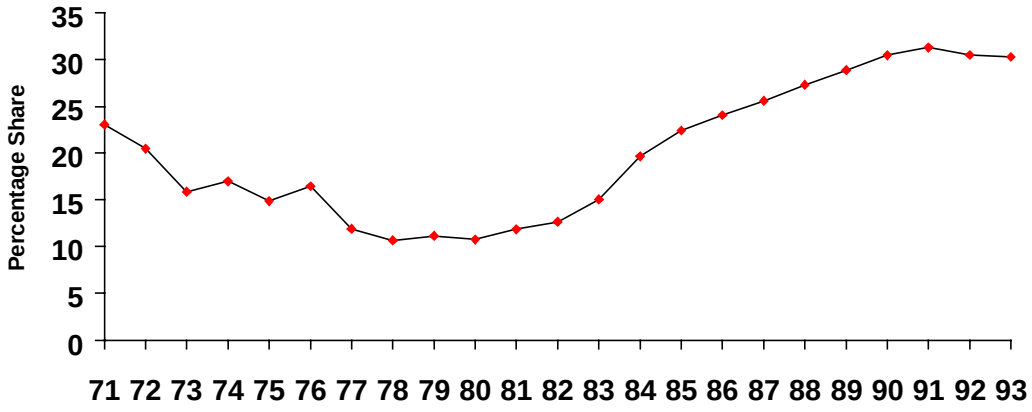
Source: MOHFW 1993

It should be noted that the contraceptive prevalence rate estimated from service statistics (43.5 percent) is higher that the NFHS contraceptive prevalence rate (40.7 percent) for the same period. Since the percentage of couples sterilized is virtually identical in the service statistics estimate and the NFHS estimate (30.3 percent and 30.9 percent respectively), the discrepancy in prevalence rates appears to be due to a discrepancy in the estimates of temporary method use. For example, service statistics estimate that a total of 6.3 percent of couples use the IUD compared to the NFHS estimate of 1.9 percent for the same period. Some analysts have speculated that this discrepancy is due to the fact that some family welfare workers inflate the service statistics because of their desire to achieve government targets.[5] According to this line of reasoning, service statistics for temporary methods are inflated rather than service statistics for sterilizations because sterilization figures are relatively difficult to alter without detection.

Figure 4 shows the share of all method use that can be attributed to temporary method use between 1970-71 and 1992-93 as estimated from service statistics. The figure shows that temporary method use as a percentage of all method use fell from 23 percent in 1970-71 to a low of 10.7 percent in 1978-79 and has been climbing almost steadily since to an unprecedented high of 31.3 percent in 1990-91. This trend suggests a slow but near continuous rise in the demand for temporary methods in India over the past decade.

[5] Note that the recent removal of family planning targets should reduce the potential for type of bias in future service statistics.

Figure 4. Share of All Method Use Attributed to Temporary Methods as Estimated from Service Statistics: 1970-71 to 1992-93



Source: MOHFW 1993

Distribution as Reported by Contraceptive Manufacturers

Data that pertain to the number of units of pills and condoms distributed by manufacturers to wholesalers by sector (commercial, social marketing, and public) are reported on a regular basis to the Government of India (GOI). This information is summarized in Tables 3 and 4 for the years 1987-88 through 1995-96 (MOHFW 1997).

Consistent with the trend in reported temporary method use (Figure 3), the data show that the total distribution of both pills and condoms has been increasing over the last decade. The trend in distribution within different sectors, however, varies. The distribution of free (public sector) pills and condoms, commercial condoms, and socially marketed (CSMP) pills has been increasing almost continuously over the past decade. By contrast, the distribution of commercial pills has remained nearly constant, and the distribution of CSMP condoms has declined.

Tables 5 and 6 compare unit volume figures for pills and condoms in 1992-93 as derived from the 1992-93 NFHS data on contraceptive use and from the MOHFW (1997) data on distribution. The comparison of pills in Table 5 shows that the MOHFW estimate of unit volume in the public (free) sector is more than double the volume derived from reported use. By contrast, the MOHFW estimate of unit volume in the *private* sector is nearly the same as the NFHS estimate

based on use. The comparison of condom volume estimates in Table 6 shows a similar pattern. The MOHFW estimate of condom volume in the public sector is substantially higher than the NFHS estimate (over 6 times as large). By contrast, the MOHFW estimate of condom volume in the private sector is 20 percent *lower* than the NFHS estimate. Note that one possible source for the discrepancy in the estimates of condom use in the private sector may be the CYP factor that we use to convert number of users to condom volume. As mentioned earlier, we have adopted the standard conversion factor for India: 144. If we were to adopt the standard as recommended by USAID (Stover et al. 1997), which is 120, the MOHFW estimate would only be 5 percent lower than the NFHS estimate. The CYP conversion factor for condoms, however, would not explain the discrepancy in the estimates of condom use in the public sector. In fact, if we were to use the USAID recommended factor, this discrepancy would widen.

Table 3: Pill Distribution Figures (Millions of Cycles), 1987-95

	Volume				Percentage			
	Free	**CSMP**	**Comm**	**Total**	**Free**	**CSMP**	**Comm**	**Total**
1987-88	0.0	0.7	8.9					
1988-89	17.0	2.9	9.2	29.2	58.5	9.8	31.7	100.0
1989-90	24.0	4.6	9.5	38.1	63.1	12.0	24.9	100.0
1990-91	20.1	5.8	9.3	35.2	57.1	16.6	26.4	100.0
1991-92	20.1	8.9	9.6	38.7	52.1	23.1	24.8	100.0
1992-93	14.4	7.9	9.0	31.3	45.9	25.3	28.8	100.0
1993-94	29.9	13.9	9.5	53.2	56.1	26.1	17.8	100.0
1994-95	26.0	12.5	10.4	48.9	53.2	25.6	21.3	100.0
1995-96	41.0	14.7	9.3	64.9	63.1	22.6	14.3	100.0

Source: Ministry of Health and Family Welfare 1997.

Table 4: Condom Distribution Figures (Millions of Pieces), 1987-95

	Volume				Percentage			
	Free	**CSMP**	**Comm**	**Total**	**Free**	**CSMP**	**Comm**	**Total**
1987-88	477.6	265.3	72.6	815.5	58.6	32.5	8.9	100
1988-89	589.2	236.6	67.3	893.1	66.0	26.5	7.5	100
1989-90	657.5	297.0	65.7	1020.1	64.5	29.1	6.4	100
1990-91	677.8	320.4	63.3	1061.4	63.9	30.2	6.0	100
1991-92	662.4	241.1	93.8	997.3	66.4	24.2	9.4	100
1992-93	679.0	278.7	117.8	1075.4	63.1	25.9	11.0	100
1993-94	871.0	219.2	155.5	1245.7	69.9	17.6	12.5	100
1994-95	916.0	146.0	154.9	1216.9	75.3	12.0	12.7	100
1995-96	874.1	163.4	199.3	1236.8	70.7	13.2	16.1	100

Source: Ministry of Health and Family Welfare 1997

Table 5. Comparison of Unit Sales of Pill Cycles (in Millions) in 1992-93 as Derived from NFHS 1992-93 and as Reported by MOHFW (1997).

	NFHS	MOHFW	Absolute Difference (MOHFW minus NFHS)	Percent Difference (MOHFW minus NFHS)
Free	9.5	21.4	11.9	125
CSMP/Commercial	20.3	19.6	-.07	-3.4

Note: MOHFW figures are an average of the figures reported for 1991-92,1992-93, an 1993-94 to allow for inventory fluctuations.

Table 6. Comparison of Unit Sales of Condom Pieces (in Millions) in 1992-93 as Derived from NFHS 1992-93 and as Reported by MOHFW (1997).

	NFHS	MOHFW	Absolute Difference (MOHFW minus NFHS)	Percent Difference (MOHFW Over NFHS)
Free	116.4	737.4	621	534
CSMP/Commercial	465.6	368.7	-96.9	-20.8

Note: MOHFW figures are an average of the figures reported for 1991-92,1992-93, an 1993-94 to allow for inventory fluctuations.

Overall, the comparison shows a greater similarity in the two types of estimates in the private sector than in the public (free) sector. This pattern suggests that there may be a fair amount of wastage of free products. Another possibility, especially in the case of condoms, is that public sector products are more likely to be used for non-contraceptive purposes (e.g., disease prevention) and among unmarried individuals. While single individuals and individuals using contraceptive products for non-contraceptive reasons constitute and important secondary market for contraceptives, their numbers are unknown. By contrast, we have a great deal of information about what can be considered the primary market for contraceptives: married women of reproductive age (MWRA) who use contraception for the purpose of pregnancy prevention. The following section uses this information to develop scenarios about how the size of this market might change in the future.

PROJECTED MARKET SIZE: 1992-93 to 2011

Projections are useful not only to gain a better understanding of possible future market size, but also for specific planning purposes. A projection can motivate manufacturers to increase production capacity or to target specific consumer groups for future sales. It is important to recognize, however, that projections are not predictions or forecasts; rather they are mathematical models of what will happen *if* demographic and consumer behavior variables follow certain specified patterns. The more key stakeholders are able to shape demographic and consumer behavior to conform to those patterns, the more closely current market projections will match future market realities.

The first step in projecting future market size (i.e., contraceptive users and unit sales) is to select a base year for which information about actual market size and actual consumer behavior is available. As the previous section discussed, the most recent year for which we have detailed information about contraceptive use patterns in India at the national level is 1992-93, from the NFHS. Thus, 1992-93 serves as the base year for all of the projections in this section. To project the size of the market for contraceptives beyond 1992-93, we must make specific assumptions about three key determinants of future market growth: 1) future population growth, 2) future contraceptive use, and 3) future commercial sector market share (commercial sector projections only). These assumptions should be within the upper and lower bounds of real possibility. We turn now to a detailed discussion of the assumptions that underlie the contraceptive market projections in this report for all-India, rural India and urban India.

Projection Assumptions and Scenarios

Future Population Growth: As discussed in the previous section, the primary market for modern temporary contraceptive products is married women of reproductive age. All projections in this section assume that the number of women in this age group will increase according to the medium variant population projections for all-India, rural India and urban India published by the United Nations (1995a,b).[6] The same assumption underlies the recent contraceptive commodity projections for all-India produced by Mauldin, Ahmed and Brandt (1995).[7]

Future Contraceptive Use: In order to project the number of future contraceptive users in the primary market, we need to make assumptions not only about population growth, but also about the prevalence of marriage and contraceptive use. The NFHS estimates that the percentage of women of reproductive who were married in 1992-93 is 77.4 percent for all-India, 37.1 for rural India and 51.1 for urban India. We assume that marriage prevalence will slowly decline over time as the average age of marriage in India rises (see Tables 7, 8, and 9). The rate of decline that we assume for all-India is comparable to the rate of decline assumed by Mauldin, Ahmed, and Brandt (1995).

[6] These United Nations projections assume that India will reach replacement level fertility by 2010-2020. The baseline data for these projections are taken from the 1991 India census and the 1989 Indian Sample Registration System (United Nations 1995).

[7] Mauldin, Ahmed and Brandt have not yet officially published their projections.

Information about the level of contraceptive use in combination with information about the number of MWRA allows us to produce projections of the number of MWRA who use contraception (i.e., the total number of contraceptive users in the primary market). According to the NFHS 1992-93, 37.1 percent of rural MWRA, 51.0 percent of urban MWRA, and 40.7 percent of all MWRA in India use some type of contraception. We assume that contraceptive prevalence will rise in rural and urban India by .81 and 1.2 percentage points respectively each year between 1993 and 2011. This assumption results in an average annual increase in contraceptive prevalence for all-India of 1.0 percentage points. This average rate of increase is consistent with both the United Nations medium variant fertility assumptions and the Government of India's (GOI) current goal to reach replacement fertility by 2011-2016. It is also the same rate of increase assumed by Mauldin, Ahmed and Brandt (1995).

Table 7: Number of Women Aged 15-49, Marriage Prevalence among Women Aged 15-49 Married, Percentage of MWRA who Use a Contraceptive Method, and Number of MWRA who Use a Contraceptive Method: Rural India, 1993-2011.

Year	Number of Women 15-49 (Thousands)	Percent Married	Percent Using a Method	Number of Users (Thousands)
1993	156,942	80.00	37.10	46,580
1994	159,692	79.84	37.91	48,335
1995	162,419	79.68	38.72	50,110
1996	165,398	79.52	39.53	51,992
1997	168,340	79.36	40.34	53,892
1998	171,242	79.20	41.15	55,809
1999	174,107	79.04	41.96	57,743
2000	176,934	78.88	42.77	59,692
2001	179,412	78.72	43.58	61,549
2002	181,841	78.56	44.39	63,413
2003	184,222	78.40	45.20	65,283
2004	186,555	78.24	46.01	67,157
2005	188,840	78.08	46.82	69,034
2006	190,546	77.92	47.63	70,718
2007	192,195	77.76	48.44	72,394
2008	193,786	77.60	49.25	74,061
2009	195,320	77.44	50.06	75,719
2010	196,796	77.28	50.87	77,365
2011	197,605	77.12	51.68	78,757

Source: Number of Women Aged 15-49 from United Nations (1995b) medium variant projections (intermediate figures are interpolated), Percent Married in 1993 from NFHS, Percent Using a Method in 1993 from NFHS.

Tables 7, 8, and 9 present the projected figures for 1) the number of women of reproductive age, 2) percent married, 3) percent using contraception, and 4) the total number of contraceptive users in the primary market for rural India, urban India and all-India respectively. The results of these projections suggest that the total number of contraceptive users in the primary market in 2011 will be 70% higher in rural areas, 150 percent higher in urban areas and 95% higher in all-India than the number of contraceptive users in 1993.

Table 8: Number of Women Aged 15-49, Marriage Prevalence among Women Aged 15-49, Percentage of MWRA who Use a Contraceptive Method, and Number of MWRA who Use a Contraceptive Method: Urban India, 1993-2011.

Year	Number of Women 15-49 (Thousands)	Percent Married	Percent Using a Method	Number of Users (Thousands)
1993	60,474	70.90	51.10	21,910
1994	62,334	70.74	52.30	23,062
1995	64,217	70.58	53.50	24,249
1996	66,561	70.42	54.70	25,639
1997	68,942	70.26	55.90	27,077
1998	71,362	70.10	57.10	28,564
1999	73,821	69.94	58.30	30,100
2000	76,317	69.78	59.50	31,686
2001	79,088	69.62	60.70	33,422
2002	81,907	69.46	61.90	35,217
2003	84,774	69.30	63.10	37,070
2004	87,690	69.14	64.30	38,984
2005	90,654	68.98	65.50	40,959
2006	93,915	68.82	66.70	43,110
2007	97,234	68.66	67.90	45,330
2008	100,610	68.50	69.10	47,622
2009	104,044	68.34	70.30	49,986
2010	107,535	68.18	71.50	52,422
2011	111,225	68.02	72.70	55,002

Source: Number of Women Aged 15-49 from United Nations (1995b) medium variant projections (intermediate figures are interpolated), Percent Married in 1993 from NFHS, Percent Using a Method in 1993 from NFHS.

Table 9: Number of Women Aged 15-49, Marriage Prevalence among Women Aged 15-49 Married (MWRA), Percentage of MWRA who Use a Contraceptive Method, and Number of MWRA who Use a Contraceptive Method: All India, 1993-2011.

Year	Number of Women 15-49 (Thousands)	Percent Married	Percent Using a Method	Number of Users (Thousands)
1993	217,416	77.40	40.70	68,490
1994	222,026	77.28	41.61	71,396
1995	226,636	77.10	42.55	74,358
1996	231,959	76.91	43.52	77,631
1997	237,282	76.72	44.48	80,969
1998	242,605	76.52	45.45	84,374
1999	247,928	76.33	46.42	87,843
2000	253,251	76.14	47.39	91,378
2001	258,500	75.94	48.38	94,971
2002	263,748	75.73	49.38	98,630
2003	268,997	75.53	50.38	102,353
2004	274,245	75.33	51.38	106,141
2005	279,494	75.13	52.38	109,994
2006	284,461	74.92	53.41	113,828
2007	289,429	74.70	54.45	117,724
2008	294,396	74.49	55.49	121,683
2009	299,364	74.28	56.53	125,704
2010	304,331	74.06	57.58	129,787
2011	308,831	73.84	58.65	133,758

Source: Number of Women Aged 15-49 from United Nations (1995a) medium variant projections (intermediate figures are interpolated), Percent Married in 1993 from NFHS , Percent Using a Method in 1993 from 1993 NFHS.

Method Mix Scenarios

In order to make separate method-specific projections, we need to make assumptions not only about contraceptive use in general, but about the future use of specific methods. According to the NFHS, modern temporary methods make up 13.5 percent of the "method mix" for all-India, 9 % of the method mix for rural India, and 22.8 percent of the method mix in urban India. Figure 5 shows the breakdown by method. Scenarios about how this method mix might change allow us to make projections that establish upper and lower bounds of future contraceptive use and sales. In this report we present two projection scenarios. The only difference between the two scenarios is the size of the contribution of temporary methods to the total method mix. All assumptions outlined above hold for both scenarios.

The first projection scenario, Method Mix Scenario 1, assumes that the 1992-93 method mix for both rural India and urban India will remain constant from 1992-93 to 2011. Given recent efforts to promote birth spacing (as opposed to limiting) in India and an increased trend toward temporary method use, we consider this scenario to be conservative. Nevertheless, we believe that the scenario provides a lower bound of real possibility in a period when fundamental changes in approaches to family planning policy (e.g., the introduction of the target-free approach) are taking place.

Method Mix Scenario 2 incorporates the method preferences of women who were not using any method in 1992-93 but who said that they intended to use a method in the future.[8] As Figure 6 illustrates, the "preferred method mix" of women who are likely to be future users more strongly favors temporary methods than the 1992-93 method mix. Specifically, the share of the preferred method mix that is attributable to temporary methods is 31 percent for all three sectors (all-India, rural India, and urban India).[9] Method Mix Scenario 2 assumes that the 1992-93 method mix will remain constant until the end of 1996 and then shift increasingly towards modern temporary methods so that by 2011 all new users will use according to the preferred method mix.[10]

Finally, in order to convert the number of users projected in the three scenarios to projected quantities of temporary methods required for effective use (i.e. unit volume), we rely on the same Couple Years of Protection (CYP) factors discussed earlier in this section: 15 cycles of pills per

[8] Previous studies have found that intention to use contraception strongly predicts actual future use (Westoff 1996). Thus, we assume that women who stated that they intend to use in the future will make up the bulk of new users in the near future.

[9] Note that there is some concern among analysts of the NFHS data that some of the preference for injections reported in the NFHS may actually reflect preference for an IUD. This concern stems from the fact that the Hindi word for injection (sui) is the same as the word for IUD insertion. The extent to which NFHS interviewers adequately probed to distinguish the two interpretations of the word while conducting the questionnaire is uncertain. Due to this concern, we reduce the proportion of the preferred method mix attributable to injections to half the reported size in the NFHS and assign the remaining half to IUDs for Method Mix Scenario 2. Thus, Method Mix Scenario 2 assumes that 1.05 percent (as opposed to 2.1 percent) of women who intend to use a method in the future intend to use injectables and 6.95 percent (as opposed to 5.90 percent) of women who intend to use a method in the future intend to use IUDs.

[10] Contraceptive users in 1996 are assumed to continue to use their method until they either discontinue of "age out" of the reproductive age group. While this is a simplifying assumption, it is not unreasonable for the majority of women since 75.9 percent are assumed to rely on sterilization as their method.

CYP, 144 condoms per CYP, and 4 injections per CYP. Again, we assume that the annual discontinuation rate for the IUD is 37.6 percent (MOHFW 1993).

Figure 5. Method Mix Scenario 1: 1992-93
Method Mix Remains Constant from 1993 to 2011
All-India

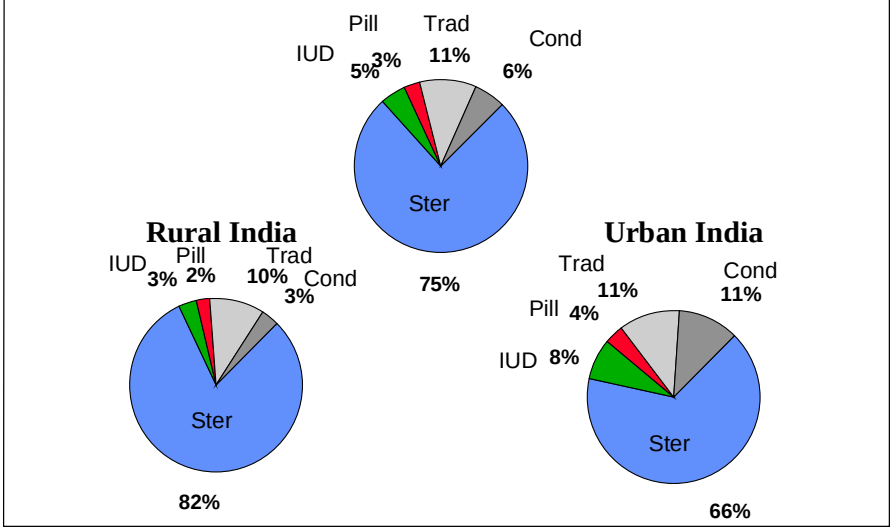
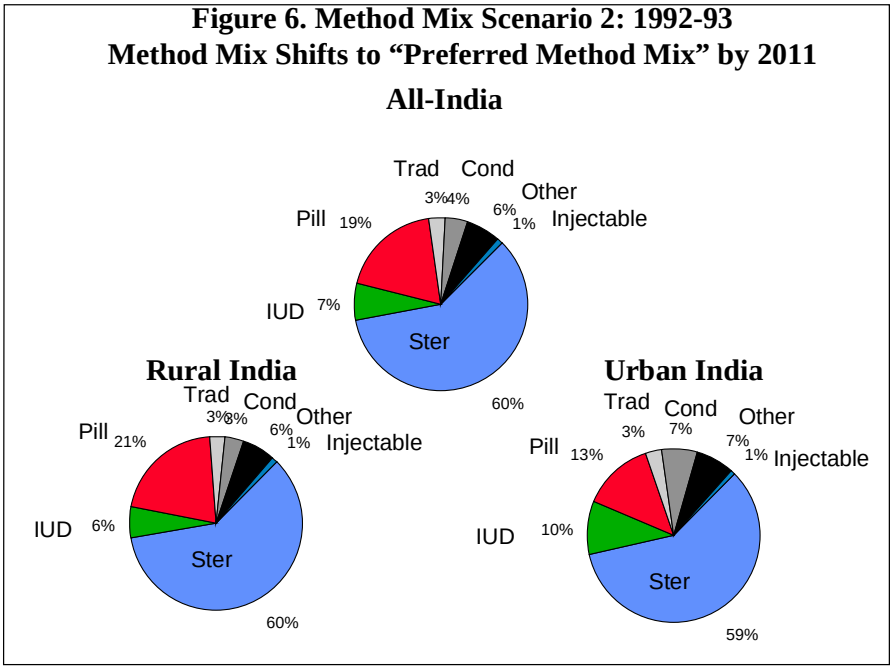


Figure 6. Method Mix Scenario 2: 1992-93
Method Mix Shifts to "Preferred Method Mix" by 2011
All-India



Future Commercial Sector Share:

As Figure 2 showed earlier, the private sector share (commercial and social marketing combined) of the pill and condom markets for all-India is approximately 68 percent and 80 percent respectively. Within the all-India private sector, the commercial share is 34 percent for pills and 45 percent for condoms (ORG 1997).[11] In rural India, the private sector share of the pill and condom markets is approximately 57 percent and 63 percent respectively. The commercial share of the rural private sector market for pills is 19 percent, and the commercial share of the rural private sector market for condoms is 36 percent (ORG 1997). Finally, in urban India, the private sector comprises about 82 percent of the total pill market and about 90 percent of the total condom market. The commercial share of the urban pill market is 48 percent and the commercial share of the urban condom market is 52 percent (ORG 1997)

We expect that the concerted efforts of private sector stakeholders will lead to an expansion of both the commercial sector and the private sector as a whole. Thus, in addition to the two method mix scenarios outlined above, this report provides two illustrative scenarios of the future commercial share of the pill and condoms markets. The first, Source Mix Scenario A, assumes that the commercial share of the private sector pill and condom markets and the private sector share of the total market remain constant at 1992-93 levels for both rural India and urban India. The second, Source Mix Scenario B, assumes that 1) the private sector grows to 90 percent of the total urban pill market and 65 percent of the total rural pill market by 2011; 2) the commercial share of the private pill market grows to 58 percent in the urban sector and 25 percent in the rural sector; 3) the private sector of the total condom market grows to 95 percent in urban India and 70 percent in rural India; 4) the commercial share of the total private condom market increase to 62 percent in urban India and to 46 percent in rural India.

We assume that the commercial sector performs 100 percent of all private sector IUDs and 100 percent of all private sector injections. Therefore, we do not provide separate commercial sector projections for these methods within the commercial sector (refer to the projections for these methods within the total private sector).

Projection Results

The market size (contraceptive users and unit sales) projections in this report are made using the Target-Cost Model, a projection model developed by the Futures Group International under the OPTIONS project of the U.S. Agency for International Development.[12] The model is based on the proximate determinants of fertility framework and allows for the projection of a host of family

[11] Note that these data refer to the period January - December 1996. Data from the MOHFW (1997) show higher figures for the commercial share of the private sector over the period 1995-1996. Specifically, the MOHFW (1997) reports that the commercial share of the private pill market for all-India is 39% and that the commercial share of the private sector condom market for all-India is 55%. The discrepancy between MOHFW (1997) and ORG (1997) figures may be due to the following factors: 1) MOHFW figures reflect what has been sold to the retailer while ORG figures reflect what has been sold to the consumer and 2) the timeframes for the two sets of figures are overlapping but not the same (i.e., MOHFW figures include 1995 volume while ORG figures do not).

[12] The model was adapted for the purposes of this report to allow the method mix of new users to vary from the method mix of continuing users as is required by Method Mix Scenario 3.

planning and reproductive health variables including number of contraceptive users by method, number of commodities by sector, fertility levels, number of new acceptors, etc. Below, projections of number of users and unit sales are presented in three sections: 1) the total market (public, commercial and social marketing combined); 2) the total private sector (commercial and social marketing sectors combined); and 3) the commercial sector. Within each of these sections, projections are presented separately for the all-India, rural India and urban India. It is important to keep in mind that these projections refer to married women of reproductive age who use contraceptive methods for pregnancy prevention. They do not refer either to single individuals or to individuals who use contraceptives for non-contraceptive purposes. Therefore these projections are best interpreted as projections of the primary market, rather than the total market for contraceptives.

Market Projections: Total Market (Combined Public, Commercial and CSM)

I. All-India

IA. Number of Users

Table 1. Method Mix Scenario 1, Projected Number of Contraceptive Users by Method, Total Market, All-India, 1993-2011 (Numbers in Thousands)

Year	Total Users	Sterili-zation	Pill	Inject-able	IUD	Condom	Any Traditional	Other
1993	68,490	46,248		0	3,224	4,035	7,249	5,805
1994	71,396	48,184	1,929	0	3,371	4,224	7,559	6,045
1995	74,358	50,156		0	3,521	4,418	7,876	6,288
1996	77,631	52,325	2,013	0	3,690	4,639	8,226	6,554
1997	80,969	54,536		0	3,863	4,865	8,584	6,826
1998	84,374	56,788	2,100	0	4,041	5,098	8,949	7,101
1999	87,843	59,081		0	4,223	5,337	9,321	7,382
2000	91,378	61,414	2,196	0	4,410	5,582	9,701	7,667
2001	94,971	63,771		0	4,605	5,841	10,088	7,953
2002	98,630	66,167	2,295	0	4,804	6,107	10,483	8,243
2003	102,353	68,603		0	5,009	6,380	10,885	8,537
2004	106,141	71,078	2,396	0	5,218	6,660	11,294	8,836
2005	109,994	73,592		0	5,432	6,947	11,711	9,139
2006	113,828	76,072	2,500	0	5,653	7,248	12,128	9,434
2007	117,724	78,589		0	5,879	7,557	12,552	9,733
2008	121,683	81,141	2,605	0	6,111	7,873	12,983	10,036
2009	125,704	83,729		0	6,348	8,197	13,422	10,342
2010	129,787	86,352	2,714	0	6,590	8,529	13,867	10,652
2011	133,758	88,880		0	6,834	8,869	14,303	10,947
			2,825					
			2,938					
			3,054					
			3,172					
			3,292					
			3,415					
			3,539					
			3,667					
			3,796					
			3,925					

Table 2. Method Mix Scenario 2, Projected Number of Contraceptive Users by Method, Total Market, All-India, 1993-2011 (Numbers in Thousands)

Year	Total Users	Sterili-zation	Pill	Inject-able	IUD	Condom	Any Traditional	Other
1993	68,490	46,248	1,929	0	3,224	4,035	7,249	5,805

1994	71,396	48,184	2,013	0	3,371	4,224	7,559	6,045
1995	74,358	50,156	2,100	0	3,521	4,418	7,876	6,288
1996	77,631	52,325	2,196	23	3,690	4,639	8,226	6,554
1997	80,969	54,352	2,633	54	3,920	4,823	8,407	6,811
1998	84,374	56,347	3,204	94	4,177	4,997	8,528	7,067
1999	87,843	58,316	3,900	141	4,459	5,163	8,592	7,321
2000	91,378	60,262	4,713	196	4,764	5,321	8,603	7,575
2001	94,971	62,166	5,650	260	5,099	5,476	8,558	7,825
2002	98,630	64,046	6,710	332	5,459	5,623	8,458	8,074
2003	102,353	65,900	7,893	412	5,844	5,761	8,301	8,323
2004	106,141	67,726	9,201	500	6,254	5,890	8,085	8,572
2005	109,994	69,525	10,637	597	6,691	6,008	7,811	8,821
2006	113,828	71,237	12,186	702	7,156	6,119	7,472	9,062
2007	117,724	72,921	13,862	816	7,647	6,218	7,071	9,303
2008	121,683	74,575	15,667	939	8,166	6,305	6,608	9,546
2009	125,704	76,200	17,604	1,071	8,713	6,379	6,080	9,789
2010	129,787	77,794	19,673	1,210	9,288	6,440	5,487	10,033
2011	133,758	79,255	21,836		9,885	6,483	4,822	10,267

IB. Quantities of Commodities (Sales Volume)

Table 3. Method Mix Scenario 1, Projected Quantities of Temporary Contraceptive Commodities in Total Market, All-India, 1993-2011 (Numbers in Thousands)

Year	Pill Cycles	Injectables	IUDs	Condom Pieces
1993	28,929	0	1,359	581,020
1994	30,200	0	1,417	608,266
1995	31,497	0	1,493	636,187
1996	32,947	0	1,561	667,954
1997	34,429	0	1,630	700,596
1998	35,945	0	1,702	734,117
1999	37,493	0	1,774	768,522
2000	39,075	0	1,853	803,818
2001	40,707	0	1,931	841,138
2002	42,374	0	2,011	879,453
2003	44,076	0	2,093	918,770
2004	45,813	0	2,176	959,095
2005	47,585	0	2,264	1,000,437
2006	49,384	0	2,352	1,043,741
2007	51,220	0	2,442	1,088,161
2008	53,092	0	2,534	1,133,705
2009	55,001	0	2,629	1,180,381
2010	56,946	0	2,722	1,228,199
2011	58,878	0	2,820	1,277,157

Table 4. Method Mix Scenario 2, Projected Quantities of Temporary Contraceptive Commodities, Total Market, All-India,, 1993-2011 (Numbers in Thousands)

Year	Pills Cycles	Injectables	IUDs	Condom Pieces
1993	28,929	0	1,359	581,020
1994	30,200	0	1,417	608,266
1995	31,497	0	1,493	636,187
1996	32,947	0	1,618	667,954
1997	39,501	91	1,731	694,464
1998	48,057	216	1,852	719,570

1999	58,497	375	1,982	743,433
2000	70,688	564	2,126	766,174
2001	84,752	786	2,277	788,576
2002	100,645	1,040	2,437	809,739
2003	118,390	1,327	2,608	829,605
2004	138,017	1,647	2,789	848,105
2005	159,557	2,001	2,980	865,165
2006	182,785	2,387	3,182	881,107
2007	207,927	2,808	3,394	895,392
2008	235,010	3,264	3,617	907,927
2009	264,059	3,755	3,851	918,622
2010	295,098	4,283	4,089	927,384
2011	327,536	4,841	4,342	933,600

II. RURAL INDIA

II.A. Number of Users

Table 5. Method Mix Scenario 1, Projected Number of Contraceptive Users by Method, Total Market, Rural India, 1993-2011 (Numbers in Thousands)

Year	Total Users	Sterili-zation	Pill	Inject-able	IUD	Condom	Any Traditional	Other
1993	46,580	33,212	1,118	0	1,537	1,537	4,751	4,425
1994	48,335	34,463	1,160	0	1,595	1,595	4,930	4,592
1995	50,110	35,728	1,203	0	1,654	1,654	5,111	4,760
1996	51,992	37,070	1,248	0	1,716	1,716	5,303	4,939
1997	53,892	38,425	1,293	0	1,778	1,778	5,497	5,120
1998	55,809	39,792	1,339	0	1,842	1,842	5,693	5,302
1999	57,743	41,171	1,386	0	1,906	1,906	5,890	5,486
2000	59,692	42,560	1,433	0	1,970	1,970	6,089	5,671
2001	61,549	43,885	1,477	0	2,031	2,031	6,278	5,847
2002	63,413	45,214	1,522	0	2,093	2,093	6,468	6,024
2003	65,283	46,546	1,567	0	2,154	2,154	6,659	6,202
2004	67,157	47,883	1,612	0	2,216	2,216	6,850	6,380
2005	69,034	49,222	1,657	0	2,278	2,278	7,042	6,558
2006	70,718	50,422	1,697	0	2,334	2,334	7,213	6,718
2007	72,394	51,617	1,737	0	2,389	2,389	7,384	6,877
2008	74,061	52,806	1,777	0	2,444	2,444	7,554	7,036
2009	75,719	53,987	1,817	0	2,499	2,499	7,723	7,193
2010	77,365	55,161	1,857	0	2,553	2,553	7,891	7,350
2011	78,757	56,154	1,890	0	2,599	2,599	8,033	7,482

Table 6. Method Mix Scenario 2, Projected Number of Contraceptive Users by Method, Total Market, Rural India, 1993-2011 (Numbers in Thousands)

Year	Total Users	Sterili-zation	Pill	Inject-able	IUD	Condom	Any Traditional	Other
1993	46,580	33,212	1,118	0	1,537	1,537	4,751	4,425
1994	48,335	34,463	1,160	0	1,595	1,595	4,930	4,592
1995	50,110	35,728	1,203	0	1,654	1,654	5,111	4,760
1996	51,992	37,070	1,248	0	1,716	1,716	5,303	4,939
1997	53,892	38,257	1,542	14	1,813	1,780	5,398	5,089
1998	55,809	39,389	1,934	34	1,925	1,845	5,455	5,227
1999	57,743	40,471	2,419	59	2,049	1,911	5,478	5,356
2000	59,692	41,506	2,989	89	2,187	1,978	5,468	5,475
2001	61,549	42,417	3,644	124	2,333	2,043	5,414	5,575
2002	63,413	43,273	4,386	164	2,492	2,108	5,326	5,664
2003	65,283	44,074	5,216	209	2,663	2,174	5,203	5,743
2004	67,157	44,818	6,134	259	2,846	2,241	5,046	5,812
2005	69,034	45,505	7,142	315	3,042	2,308	4,854	5,869
2006	70,718	46,008	8,211	374	3,241	2,369	4,615	5,900
2007	72,394	46,448	9,365	438	3,452	2,431	4,341	5,919
2008	74,061	46,825	10,604	506	3,674	2,492	4,033	5,926
2009	75,719	47,136	11,929	580	3,908	2,554	3,690	5,922
2010	77,365	47,381	13,339	659	4,153	2,616	3,311	5,907
2011	78,757	47,417	14,784	740	4,396	2,669	2,890	5,861

II.B Quantities of Commodities (Sales Volume)

Table 7. Method Mix Scenario 1, Projected Quantities of Temporary Contraceptive Commodities, Total Market, Rural India, 1993-2011 (Numbers in Thousands)

Year	Pills	Injectables	IUDs	Condoms
1993	16,769	0	636	221,350
1994	17,400	0	658	229,686
1995	18,039	0	684	238,121
1996	18,717	0	708	247,065
1997	19,401	0	732	256,095
1998	20,091	0	756	265,206
1999	20,787	0	781	274,395
2000	21,489	0	802	283,657
2001	22,158	0	825	292,482
2002	22,829	0	849	301,339
2003	23,502	0	872	310,223
2004	24,176	0	895	319,128
2005	24,852	0	912	328,051
2006	25,459	0	933	336,052
2007	26,062	0	953	344,017
2008	26,662	0	974	351,939
2009	27,259	0	994	359,815
2010	27,851	0	1,006	367,638
2011	28,352	0	1,018	374,252

Table 8. Method Mix Scenario 2, Projected Quantities of Temporary Contraceptive Commodities, Total Market, Rural India, 1993-2011 (Numbers in Thousands)

Year	Pills	Injectables	IUDs	Condoms
1993	16,769	0	636	221,350
1994	17,400	0	658	229,686
1995	18,039	0	684	238,121
1996	18,717	0	742	247,065
1997	23,127	57	793	256,290
1998	29,009	136	849	265,674
1999	36,281	237	908	275,208
2000	44,832	357	969	284,881
2001	54,657	497	1,036	294,187
2002	65,788	657	1,108	303,593
2003	78,234	837	1,185	313,094
2004	92,009	1,038	1,266	322,687
2005	107,125	1,259	1,343	332,367
2006	123,165	1,495	1,429	341,178
2007	140,477	1,751	1,520	350,019
2008	159,064	2,026	1,615	358,885
2009	178,930	2,321	1,715	367,771
2010	200,078	2,635	1,804	376,673
2011	221,754	2,959	1,898	384,398

III. URBAN INDIA

III.A Number of Users

Table 9. Method Mix Scenario 1, Projected Number of Contraceptive Users by Method, Total Market, Urban India, 1993-2011 (Numbers in Thousands)

Year	Total Users	Sterili-zation	Pill	Inject-able	IUD	Condom	Any Traditional	Other
1993	21,910	13,036	811	0	1,687	2,498	2,498	1,380
1994	23,062	13,722	853	0	1,776	2,629	2,629	1,453
1995	24,249	14,428	897	0	1,867	2,764	2,764	1,528
1996	25,639	15,255	949	0	1,974	2,923	2,923	1,615
1997	27,077	16,111	1,002	0	2,085	3,087	3,087	1,706
1998	28,564	16,996	1,057	0	2,199	3,256	3,256	1,800
1999	30,100	17,910	1,114	0	2,318	3,431	3,431	1,896
2000	31,686	18,853	1,172	0	2,440	3,612	3,612	1,996
2001	33,422	19,886	1,237	0	2,573	3,810	3,810	2,106
2002	35,217	20,954	1,303	0	2,712	4,015	4,015	2,219
2003	37,070	22,057	1,372	0	2,854	4,226	4,226	2,335
2004	38,984	23,196	1,442	0	3,002	4,444	4,444	2,456
2005	40,959	24,371	1,515	0	3,154	4,669	4,669	2,580
2006	43,110	25,650	1,595	0	3,319	4,915	4,915	2,716
2007	45,330	26,972	1,677	0	3,490	5,168	5,168	2,856
2008	47,622	28,335	1,762	0	3,667	5,429	5,429	3,000
2009	49,986	29,742	1,849	0	3,849	5,698	5,698	3,149
2010	52,422	31,191	1,940	0	4,037	5,976	5,976	3,303
2011	55,002	32,726	2,035	0	4,235	6,270	6,270	3,465

Table 10. Method Mix Scenario 2, Projected Number of Contraceptive Users by Method, Total Market, Urban India, 1993-2011 (Numbers in Thousands)

Year	Total Users	Sterili-zation	Pill	Inject-able	IUD	Condom	Any Traditional	Other
1993	21,910	13,036	811	0	1,687	2,498	2,498	1,380
1994	23,062	13,722	853	0	1,776	2,629	2,629	1,453
1995	24,249	14,428	897	0	1,867	2,764	2,764	1,528
1996	25,639	15,255	949	0	1,974	2,923	2,923	1,615
1997	27,077	16,095	1,092	8	2,107	3,043	3,008	1,724
1998	28,564	16,958	1,270	20	2,253	3,152	3,070	1,842
1999	30,100	17,845	1,481	34	2,410	3,252	3,110	1,969
2000	31,686	18,756	1,724	52	2,578	3,342	3,130	2,105
2001	33,422	19,750	2,006	72	2,766	3,433	3,137	2,258
2002	35,217	20,773	2,324	96	2,967	3,515	3,121	2,421
2003	37,070	21,826	2,677	122	3,181	3,587	3,084	2,594
2004	38,984	22,908	3,067	152	3,408	3,649	3,023	2,778
2005	40,959	24,020	3,495	186	3,649	3,700	2,937	2,972
2006	43,110	25,229	3,975	223	3,914	3,750	2,832	3,187
2007	45,330	26,472	4,497	264	4,195	3,787	2,701	3,414
2008	47,622	27,751	5,063	309	4,492	3,813	2,541	3,654
2009	49,986	29,064	5,675	359	4,805	3,825	2,351	3,906

2010	52,422	30,413	6,335	412	5,135	3,824	2,130	4,172
2011	55,002	31,837	7,052	470	5,489	3,814	1,880	4,458

III.B. Quantities of Commodities (Sales Volume)

Table 11. Method Mix Scenario 1, Projected Quantities of Temporary Contraceptive Commodities, Total Market, Urban India, 1993-2011 (Numbers in Thousands)

Year	Pills	Injectables	IUDs	Condoms
1993	12,160	0	723	359,671
1994	12,799	0	759	378,580
1995	13,458	0	809	398,066
1996	14,230	0	853	420,890
1997	15,028	0	898	444,501
1998	15,853	0	945	468,911
1999	16,706	0	994	494,127
2000	17,586	0	1,051	520,161
2001	18,549	0	1,106	548,656
2002	19,545	0	1,162	578,114
2003	20,574	0	1,221	608,547
2004	21,636	0	1,281	639,967
2005	22,732	0	1,351	672,385
2006	23,926	0	1,419	707,689
2007	25,158	0	1,489	744,145
2008	26,430	0	1,561	781,766
2009	27,742	0	1,635	820,567
2010	29,094	0	1,716	860,561
2011	30,526	0	1,802	902,905

Table 12. Method Mix Scenario 2, Projected Quantities of Temporary Contraceptive Commodities, Total Market, Urban India, 1993-2011 (Numbers in Thousands)

Year	Pills	Injectables	IUDs	Condoms
1993	12,160	0	723	359,671
1994	12,799	0	759	378,580
1995	13,458	0	809	398,066
1996	14,230	0	875	420,890
1997	16,374	34	938	438,174
1998	19,048	80	1,004	453,896
1999	22,217	138	1,074	468,225
2000	25,856	207	1,157	481,293
2001	30,095	289	1,241	494,389
2002	34,857	383	1,329	506,147
2003	40,156	490	1,423	516,512
2004	46,008	609	1,522	525,418
2005	52,432	742	1,637	532,797
2006	59,619	892	1,753	539,929
2007	67,450	1,057	1,874	545,373
2008	75,946	1,238	2,002	549,042
2009	85,128	1,435	2,137	550,851
2010	95,020	1,648	2,285	550,711
2011	105,782	1,881	2,444	549,202

Market Projections: Private Sector (Combined Commercial and CSM)

I. ALL-INDIA

I.A. Number of Users

Table 1. Method Mix Scenario 1, Projected Number of Contraceptive Users by Method, Private Sector, All-India, 1993-2011 (Numbers in Thousands)

Year	Pills	Injectables	IUDs	Condoms
1993	1,310	0	1,160	3,615
1994	1,369	0	1,216	3,785
1995	1,430	0	1,273	3,958
1996	1,498	0	1,338	4,156
1997	1,568	0	1,405	4,359
1998	1,640	0	1,474	4,568
1999	1,713	0	1,544	4,782
2000	1,789	0	1,617	5,002
2001	1,867	0	1,694	5,234
2002	1,947	0	1,774	5,472
2003	2,030	0	1,856	5,717
2004	2,114	0	1,940	5,968
2005	2,200	0	2,026	6,225
2006	2,289	0	2,117	6,494
2007	2,379	0	2,210	6,771
2008	2,472	0	2,306	7,054
2009	2,567	0	2,405	7,345
2010	2,664	0	2,506	7,642
2011	2,762	0	2,610	7,947

Table 2. Method Mix Scenario 2, Projected Number of Contraceptive Users by Method, Private Sector, All-India, 1993-2011 (Numbers in Thousands)

Year	Pills	Injectables	IUDs	Condoms
1993	1,310	0	1,160	3,615
1994	1,369	0	1,216	3,785
1995	1,430	0	1,273	3,958
1996	1,498	0	1,338	4,156
1997	1,785	17	1,423	4,321
1998	2,157	41	1,518	4,477
1999	2,610	70	1,622	4,626
2000	3,137	106	1,734	4,767
2001	3,746	147	1,857	4,907
2002	4,434	195	1,989	5,038
2003	5,202	249	2,131	5,162
2004	6,051	309	2,281	5,277
2005	6,983	375	2,441	5,383
2006	7,992	448	2,614	5,482
2007	9,086	526	2,796	5,571
2008	10,264	612	2,989	5,649
2009	11,530	704	3,192	5,716
2010	12,883	803	3,405	5,770
2011	14,304	908	3,629	5,809

I.B. Quantities of Commodities (Sales Volume)

Table 3. Method Mix Scenario 1, Projected Quantities of Temporary Contraceptive Commodities, Private Sector, All-India, 1993-2011 (Numbers in Thousands)

Year	Pill Cycles	Injectables	IUD	Condom Pieces
1993	19,650	0	1,359	581,020
1994	20,539	0	1,417	608,266
1995	21,449	0	1,493	636,187
1996	22,473	0	1,561	667,954
1997	23,524	0	1,630	700,596
1998	24,600	0	1,702	734,117
1999	25,702	0	1,774	768,522
2000	26,829	0	1,853	803,818
2001	28,007	0	1,931	841,138
2002	29,212	0	2,011	879,453
2003	30,446	0	2,093	918,770
2004	31,708	0	2,176	959,095
2005	32,999	0	2,264	1,000,437
2006	34,330	0	2,352	1,043,741
2007	35,691	0	2,442	1,088,161
2008	37,083	0	2,534	1,133,705
2009	38,506	0	2,629	1,180,381
2010	39,959	0	2,722	1,228,199
2011	41,425	0	2,820	1,277,157

Table 4. Method Mix Scenario 2, Projected Quantities of Temporary Contraceptive Commodities, Private Sector, All-India, 1993-2011 (Numbers in Thousands)

Year	Pill Cycles	Injectable	IUD	Condom Pieces
1993	19,650	0	492	520,594
1994	20,539	0	514	545,006
1995	21,449	0	544	570,023
1996	22,473	0	589	598,487
1997	26,774	68	630	622,240
1998	32,357	162	674	644,734
1999	39,146	281	722	666,116
2000	47,058	423	775	686,492
2001	56,196	589	831	706,564
2002	66,515	780	889	725,526
2003	78,033	995	952	743,326
2004	90,770	1,235	1,018	759,902
2005	104,748	1,501	1,090	775,187
2006	119,887	1,790	1,165	789,472
2007	136,286	2,106	1,244	802,271
2008	153,965	2,448	1,327	813,503
2009	172,946	2,816	1,414	823,085
2010	193,246	3,212	1,505	830,936
2011	214,567	3,630	1,602	836,505

II. RURAL INDIA

II.A. Number of Users

Table 5. Method Mix Scenario 1, Projected Number of Contraceptive Users by Method, Private Sector, Rural India, 1993-2011 (Numbers in Thousands)

Year	Pills	Injectables	IUDs	Condoms
1993	643	0	369	1,377
1994	667	0	383	1,429
1995	692	0	397	1,482
1996	717	0	412	1,537
1997	744	0	427	1,593
1998	770	0	442	1,650
1999	797	0	457	1,707
2000	824	0	473	1,765
2001	849	0	487	1,820
2002	875	0	502	1,875
2003	901	0	517	1,930
2004	927	0	532	1,986
2005	953	0	547	2,041
2006	976	0	560	2,091
2007	999	0	573	2,141
2008	1,022	0	587	2,190
2009	1,045	0	600	2,239
2010	1,068	0	613	2,288
2011	1,087	0	624	2,329

Table 6. Method Mix Scenario 2, Projected Number of Contraceptive Users by Method, Private Sector, Rural India, 1993-2011 (Numbers in Thousands)

Year	Pills	Injectables	IUDs	Condoms
1993	643	0	369	1,377
1994	667	0	383	1,429
1995	692	0	397	1,482
1996	717	0	412	1,537
1997	887	11	435	1,595
1998	1,112	26	462	1,653
1999	1,391	44	492	1,712
2000	1,719	67	525	1,773
2001	2,095	93	560	1,830
2002	2,522	123	598	1,889
2003	2,999	157	639	1,948
2004	3,527	195	683	2,008
2005	4,106	236	730	2,068
2006	4,721	280	778	2,123
2007	5,385	328	828	2,178
2008	6,097	380	882	2,233
2009	6,859	435	938	2,288
2010	7,670	494	997	2,344
2011	8,501	555	1,055	2,392

II.B Quantities of Commodities (Sales Volume)

Table 7. Method Mix Scenario 1, Projected Quantities of Temporary Contraceptive Commodities, Private Sector, Rural India, 1993-2011 (Numbers in Thousands)

Year	Pill	Injectable	IUD	Condom
1993	9,642	0	153	198,329
1994	10,005	0	158	205,799
1995	10,373	0	164	213,356
1996	10,762	0	170	221,370
1997	11,156	0	176	229,461
1998	11,553	0	182	237,625
1999	11,953	0	187	245,858
2000	12,356	0	192	254,157
2001	12,741	0	198	262,064
2002	13,127	0	204	270,000
2003	13,513	0	209	277,959
2004	13,901	0	215	285,939
2005	14,290	0	219	293,934
2006	14,639	0	224	301,103
2007	14,986	0	229	308,239
2008	15,331	0	234	315,337
2009	15,674	0	239	322,394
2010	16,015	0	241	329,404
2011	16,303	0	244	335,330

Table 8. Method Mix Scenario 2, Projected Quantities of Temporary Contraceptive Commodities, Private Sector, Rural India, 1993-2011 (Numbers in Thousands)

Year	Pill	Injectable	IUD	Condom
1993	9,642	0	153	198,329
1994	10,005	0	158	205,799
1995	10,373	0	164	213,356
1996	10,762	0	178	221,370
1997	13,298	43	190	229,636
1998	16,680	102	204	238,044
1999	20,861	178	218	246,586
2000	25,779	268	232	255,254
2001	31,428	373	249	263,592
2002	37,828	493	266	272,019
2003	44,985	628	284	280,532
2004	52,905	778	304	289,127
2005	61,597	944	322	297,801
2006	70,820	1,121	343	305,695
2007	80,774	1,313	365	313,617
2008	91,462	1,519	388	321,561
2009	102,885	1,740	411	329,523
2010	115,045	1,976	433	337,499
2011	127,508	2,219	456	344,421

III. URBAN INDIA

III. Number of Users

Table 9. Method Mix Scenario 1, Projected Number of Contraceptive Users by Method, Private Sector, Urban India, 1993-2011 (Numbers in Thousands)

Year	Pills	Injectables	IUDs	Condoms
1993	667	0	791	2,238
1994	702	0	833	2,356
1995	738	0	876	2,477
1996	781	0	926	2,619
1997	825	0	978	2,766
1998	870	0	1,032	2,918
1999	917	0	1,087	3,075
2000	965	0	1,144	3,237
2001	1,018	0	1,207	3,414
2002	1,072	0	1,272	3,597
2003	1,129	0	1,339	3,787
2004	1,187	0	1,408	3,982
2005	1,247	0	1,479	4,184
2006	1,313	0	1,557	4,403
2007	1,380	0	1,637	4,630
2008	1,450	0	1,720	4,864
2009	1,522	0	1,805	5,106
2010	1,596	0	1,893	5,355
2011	1,675	0	1,986	5,618

Table 10. Method Mix Scenario 2, Projected Number of Contraceptive Users by Method, Private Sector, Urban India, 1993-2011 (Numbers in Thousands)

Year	Pills	Injectables	IUDs	Condoms
1993	667	0	791	2,238
1994	702	0	833	2,356
1995	738	0	876	2,477
1996	781	0	926	2,619
1997	898	6	988	2,726
1998	1,045	15	1,057	2,824
1999	1,219	26	1,130	2,913
2000	1,419	39	1,209	2,995
2001	1,651	54	1,297	3,076
2002	1,913	72	1,391	3,149
2003	2,203	92	1,492	3,214
2004	2,524	114	1,598	3,269
2005	2,877	139	1,711	3,315
2006	3,271	167	1,836	3,360
2007	3,701	198	1,968	3,393
2008	4,167	232	2,107	3,416
2009	4,671	269	2,254	3,428
2010	5,213	309	2,408	3,427
2011	5,804	353	2,575	3,417

III.B. Quantities of Commodities (Sales Volume)

Table 11. Method Mix Scenario 1, Projected Quantities of Temporary Contraceptive Commodities, Private Sector, Urban India, 1993-2011 (Numbers in Thousands)

Year	Pill	Injectable	IUD	Condom
1993	10,008	0	339	322,265
1994	10,534	0	356	339,208
1995	11,076	0	379	356,667
1996	11,711	0	400	377,117
1997	12,368	0	421	398,273
1998	13,047	0	443	420,144
1999	13,749	0	466	442,738
2000	14,473	0	493	466,064
2001	15,266	0	519	491,596
2002	16,086	0	545	517,991
2003	16,932	0	572	545,258
2004	17,807	0	601	573,410
2005	18,709	0	634	602,457
2006	19,691	0	666	634,089
2007	20,705	0	698	666,754
2008	21,752	0	732	700,462
2009	22,832	0	767	735,228
2010	23,945	0	805	771,063
2011	25,123	0	845	809,003

Table 12. Method Mix Scenario 2, Projected Quantities of Temporary Contraceptive, Private Sector, Urban India, 1993-2011 (Numbers in Thousands)

Year	Pill	Injectable	IUD	Condom
1993	10,008	0	339	322,265
1994	10,534	0	356	339,208
1995	11,076	0	379	356,667
1996	11,711	0	411	377,117
1997	13,476	25	440	392,604
1998	15,676	60	471	406,691
1999	18,284	103	504	419,530
2000	21,279	155	543	431,238
2001	24,769	216	582	442,972
2002	28,688	287	624	453,508
2003	33,049	367	667	462,794
2004	37,865	457	714	470,775
2005	43,151	557	768	477,386
2006	49,067	669	822	483,777
2007	55,512	793	879	488,654
2008	62,504	928	939	491,942
2009	70,061	1,076	1,002	493,562
2010	78,201	1,236	1,072	493,437
2011	87,058	1,411	1,146	492,085

Market Projections: Commercial Sector

I. ALL INDIA

I.A. Number of Users

Table 1. Method Mix Scenario 1, Projected Number of Contraceptive Users by Method, Commercial Sector, All-India, 1993-2011 (Numbers in Thousands)

	Source Mix Scenario A		Source Mix Scenario B	
Year	Pills	Condoms	Pills	Condoms
1993	442	1,519	442	1,519
1994	463	1,593	463	1,593
1995	485	1,670	485	1,670
1996	511	1,758	511	1,758
1997	537	1,849	534	1,943
1998	563	1,943	557	2,128
1999	591	2,040	580	2,313
2000	619	2,139	603	2,497
2001	650	2,246	626	2,682
2002	681	2,356	649	2,867
2003	713	2,469	672	3,052
2004	746	2,585	695	3,237
2005	780	2,705	718	3,421
2006	815	2,833	741	3,606
2007	852	2,964	764	3,791
2008	890	3,099	787	3,976
2009	929	3,238	810	4,160
2010	969	3,381	833	4,345
2011	1,011	3,529	1,369	4,530

Table 2. Method Mix Scenario 2, Projected Number of Contraceptive Users by Method, Commercial Sector, All-India, 1993-2011 (Numbers in Thousands)

	Source Mix Scenario A		Source Mix Scenario B	
Year	Pills	Condoms	Pills	Condoms
1993	442	1,519	442	1,519
1994	463	1,593	463	1,593
1995	485	1,670	485	1,670
1996	511	1,758	511	1,758
1997	599	1,829	813	1,848
1998	712	1,895	1,115	1,938
1999	848	1,957	1,418	2,028
2000	1,005	2,014	1,720	2,118
2001	1,188	2,072	2,023	2,208
2002	1,394	2,125	2,325	2,297
2003	1,623	2,173	2,628	2,387
2004	1,877	2,217	2,930	2,477
2005	2,155	2,256	3,232	2,567
2006	2,460	2,293	3,535	2,657
2007	2,791	2,325	3,837	2,747
2008	3,149	2,351	4,140	2,836
2009	3,535	2,371	4,442	2,926
2010	3,948	2,384	4,744	3,016
2011	4,388	2,391	6,084	3,106

I.B. Quantities of Commodities (Sales Volume)

Table 3. Method Mix Scenario 1, Projected Quantities of Pills and Condoms, Commercial Sector, All-India, 1993-2011 (Numbers in Thousands)

	Source Mix Scenario A		Source Mix Scenario B	
Year	Pills	Condoms	Pills	Condoms
1993	6,628	218,667	6,628	218,667
1994	6,950	229,423	6,950	229,423
1995	7,280	240,471	7,280	240,471
1996	7,659	253,202	7,659	253,202
1997	8,049	266,322	8,005	279,810
1998	8,451	279,836	8,351	306,418
1999	8,864	293,746	8,697	333,026
2000	9,289	308,057	9,042	359,633
2001	9,743	323,426	9,388	386,241
2002	10,211	339,255	9,734	412,849
2003	10,691	355,547	10,080	439,457
2004	11,185	372,308	10,426	466,065
2005	11,693	389,543	10,772	492,673
2006	12,231	407,926	11,118	519,281
2007	12,785	426,842	11,464	545,889
2008	13,354	446,296	11,809	572,497
2009	13,939	466,294	12,155	599,105
2010	14,540	486,842	12,501	625,712
2011	15,161	508,221	20,542	652,320

Table 4. Method Mix Scenario 2, Projected Quantities of Pills and Condoms, Commercial Sector, All-India, 1993-2011 (Numbers in Thousands)

	Source Mix Scenario		Source Mix Scenario B	
Year	Pills	Condoms	Pills	Condoms
1993	6,628	218,667	6,628	218,667
1994	6,950	229,423	6,950	229,423
1995	7,280	240,471	7,280	240,471
1996	7,659	253,202	7,659	253,202
1997	8,984	263,393	12,195	266,139
1998	10,677	272,886	16,731	279,076
1999	12,717	281,759	21,268	292,013
2000	15,081	290,069	25,804	304,950
2001	17,820	298,311	30,340	317,887
2002	20,906	305,946	34,876	330,824
2003	24,348	312,948	39,413	343,761
2004	28,151	319,286	43,949	356,697
2005	32,325	324,925	48,485	369,634
2006	36,903	330,254	53,021	382,571
2007	41,872	334,795	57,558	395,508
2008	47,242	338,509	62,094	408,445
2009	53,022	341,353	66,630	421,382
2010	59,221	343,285	71,166	434,319
2011	65,822	344,310	91,253	447,256

II. RURAL INDIA

II.A. Number of Users

Table 5. Method Mix Scenario 1, Projected Number of Contraceptive Users by Method, Commercial Sector, Rural India, 1993-2011 (Numbers in Thousands)

	Source Mix Scenario A		Source Mix Scenario B	
Year	Pills	Condoms	Pills	Condoms
1993	120	345	120	345
1994	125	358	125	358
1995	129	371	129	371
1996	134	385	134	385
1997	139	399	146	415
1998	144	413	157	445
1999	149	428	169	475
2000	154	442	180	506
2001	159	456	192	536
2002	164	470	203	566
2003	169	483	215	596
2004	173	497	226	626
2005	178	511	238	656
2006	183	524	250	686
2007	187	536	261	716
2008	191	548	273	747
2009	195	561	284	777
2010	200	573	296	807
2011	203	583	307	837

Table 6. Method Mix Scenario 2, Projected Number of Contraceptive Users by Method, Commercial Sector, Rural India, 1993-2011 (Numbers in Thousands)

	Source Mix Scenario A		Source Mix Scenario B	
Year	Pills	Condoms	Pills	Condoms
1993	120	345	120	345
1994	125	358	125	358
1995	129	371	129	371
1996	134	385	134	385
1997	166	399	285	417
1998	208	414	437	448
1999	260	429	588	480
2000	321	444	739	512
2001	392	458	890	543
2002	472	473	1,041	575
2003	561	488	1,193	606
2004	660	503	1,344	638
2005	768	518	1,495	670
2006	883	532	1,646	701
2007	1,007	545	1,798	733
2008	1,141	559	1,949	765
2009	1,283	573	2,100	796
2010	1,435	587	2,251	828
2011	1,590	599	2,402	860

II. B. Quantites of Commodities (Sales Volume)

Table 7. Method Mix Scenario 1, Projected Quantities of Pills and Condoms, Commercial Sector, Rural India, 1993-2011 (Numbers in Thousands)

	Source Mix Scenario A		Source Mix Scenario B	
Year	Pills	Condoms	Pills	Condoms
1993	1,804	218,667	1,804	218,667
1994	1,872	229,423	1,872	229,423
1995	1,940	240,471	1,940	240,471
1996	2,013	253,202	2,013	253,202
1997	2,087	266,322	2,186	279,810
1998	2,161	279,836	2,359	306,418
1999	2,236	293,746	2,532	333,026
2000	2,311	308,057	2,705	359,633
2001	2,383	323,426	2,878	386,241
2002	2,456	339,255	3,051	412,849
2003	2,528	355,547	3,224	439,457
2004	2,600	372,308	3,397	466,065
2005	2,673	389,543	3,570	492,673
2006	2,738	407,926	3,743	519,281
2007	2,803	426,842	3,915	545,889
2008	2,868	446,296	4,088	572,497
2009	2,932	466,294	4,261	599,105
2010	2,996	486,842	4,434	625,712
2011	3,050	508,221	4,607	652,320

Table 8. Method Mix Scenario 2, Projected Quantities of Pills and Condoms, Commercial Sector, Rural India, 1993-2011 (Numbers in Thousands)

	Source Mix Scenario A		Source Mix Scenario B	
Year	Pills	Condoms	Pills	Condoms
1993	1,804	218,667	1,804	218,667
1994	1,872	229,423	1,872	229,423
1995	1,940	240,471	1,940	240,471
1996	2,013	253,202	2,013	253,202
1997	2,488	263,393	4,281	266,139
1998	3,120	272,886	6,549	279,076
1999	3,902	281,759	8,818	292,013
2000	4,822	290,069	11,086	304,950
2001	5,879	298,311	13,354	317,887
2002	7,076	305,946	15,622	330,824
2003	8,415	312,948	17,890	343,761
2004	9,897	319,286	20,158	356,697
2005	11,523	324,925	22,426	369,634
2006	13,248	330,254	24,694	382,571
2007	15,110	334,795	26,963	395,508
2008	17,109	338,509	29,231	408,445
2009	19,246	341,353	31,499	421,382
2010	21,521	343,285	33,767	434,319
2011	23,852	344,310	36,035	447,256

III. URBAN INDIA

III.A. Number of Users

Table 9. Method Mix Scenario 1, Projected Number of Contraceptive Users by Method, Commercial Sector, Urban India, 1993-2011 (Numbers in Thousands)

	Source Mix Scenario A		Source Mix Scenario B	
Year	Pills	Condoms	Pills	Condoms
1993	322	1,174	322	1,174
1994	339	1,235	339	1,235
1995	356	1,299	356	1,299
1996	376	1,373	376	1,373
1997	398	1,450	388	1,528
1998	419	1,530	399	1,683
1999	442	1,612	411	1,837
2000	465	1,697	423	1,992
2001	491	1,790	434	2,147
2002	517	1,886	446	2,301
2003	544	1,986	457	2,456
2004	572	2,088	469	2,611
2005	601	2,194	480	2,765
2006	633	2,309	492	2,920
2007	665	2,428	503	3,075
2008	699	2,551	515	3,229
2009	734	2,677	526	3,384
2010	770	2,808	538	3,538
2011	807	2,946	1,062	3,693

Table 10. Method Mix Scenario 2, Projected Number of Contraceptive Users by Method, Commercial Sector, Urban India, 1993-2011 (Numbers in Thousands)

	Source Mix Scenario A		Source Mix Scenario B	
Year	Pills	Condoms	Pills	Condoms
1993	322	1,174	322	1,174
1994	339	1,235	339	1,235
1995	356	1,299	356	1,299
1996	376	1,373	376	1,373
1997	433	1,430	528	1,432
1998	504	1,481	679	1,490
1999	588	1,528	830	1,548
2000	684	1,570	981	1,606
2001	796	1,613	1,132	1,664
2002	922	1,651	1,284	1,723
2003	1,062	1,685	1,435	1,781
2004	1,217	1,714	1,586	1,839
2005	1,387	1,738	1,737	1,897
2006	1,577	1,762	1,888	1,955
2007	1,784	1,779	2,040	2,014
2008	2,009	1,791	2,191	2,072
2009	2,252	1,797	2,342	2,130
2010	2,513	1,797	2,493	2,188
2011	2,798	1,792	3,681	2,246

III.B. Quantities of Commodities (Sales Volume)

Table 11. Method Mix Scenario 1, Projected Quantities of Pills and Condoms, Commercial Sector, Urban India, 1993-2011 (Numbers in Thousands)

	Source Mix Scenario A		Source Mix Scenario B	
Year	Pills	Condoms	Pills	Condoms
1993	4,825	168,992	4,825	168,992
1994	5,078	177,877	5,078	177,877
1995	5,340	187,032	5,340	187,032
1996	5,646	197,756	5,646	197,756
1997	5,963	208,850	5,819	220,026
1998	6,290	220,319	5,992	242,297
1999	6,628	232,167	6,165	264,567
2000	6,977	244,399	6,338	286,837
2001	7,360	257,788	6,510	309,108
2002	7,755	271,629	6,683	331,378
2003	8,163	285,928	6,856	353,648
2004	8,585	300,690	7,029	375,919
2005	9,019	315,922	7,202	398,189
2006	9,493	332,510	7,375	420,459
2007	9,982	349,638	7,548	442,730
2008	10,486	367,315	7,721	465,000
2009	11,007	385,545	7,894	487,270
2010	11,544	404,337	8,067	509,541
2011	12,112	424,232	15,935	531,811

Table 12. Method Mix Scenario 2, Projected Quantities of Pills and Condoms, Commercial Sector, Urban India, 1993-2011 (Numbers in Thousands)

	Source Mix Scenario A		Source Mix Scenario B	
Year	Pills	Condoms	Pills	Condoms
1993	4,825	168,992	4,825	168,992
1994	5,078	177,877	5,078	177,877
1995	5,340	187,032	5,340	187,032
1996	5,646	197,756	5,646	197,756
1997	6,497	205,877	7,914	206,138
1998	7,557	213,264	10,182	214,519
1999	8,815	219,997	12,450	222,901
2000	10,258	226,137	14,718	231,282
2001	11,941	232,290	16,986	239,664
2002	13,830	237,814	19,255	248,046
2003	15,933	242,684	21,523	256,427
2004	18,254	246,869	23,791	264,809
2005	20,803	250,336	26,059	273,190
2006	23,655	253,687	28,327	281,572
2007	26,762	256,245	30,595	289,954
2008	30,133	257,969	32,863	298,335
2009	33,776	258,819	35,131	306,717
2010	37,700	258,753	37,399	315,098
2011	41,970	258,044	55,218	323,480

III. BARRIERS TO GREATER TEMPORARY METHOD USE IN URBAN AND RURAL AREAS: ASSESSMENT AND MARKETING IMPLICATIONS

The extent to which temporary methods make up a greater share of the contraceptive market in the future (as outlined in scenarios 2 and 3 in the previous section) will depend partly on the extent to which key stakeholders address existing barriers to temporary method use. This section reviews available data to assess four types of potential barriers to the use of temporary methods in urban and rural areas: 1) knowledge and awareness; 2) attitudes and perceptions; 3) access (i.e., availability and price); and 4) policy. The section provides a separate assessment for condoms, pills, IUDs, and injectables. For each method, data are presented separately for urban and rural areas. Each assessment begins with an overview of current use, then moves to an analysis of the four types of potential barriers to expanded use, and closes with a summary of findings and marketing implications.

Since the subject of this report is the *national* market for temporary methods in India, the analysis relies whenever possible on data from the National Family Health Survey 1992-93 (NFHS)[13], the most recent and comprehensive source of information about contraceptive use at the national level in India. However many issues of special interest to marketers and manufacturers, such as purchasing behavior and attitudes towards particular contraceptive brands, are not available from the NFHS. In these instances, we rely on surveys and other sources of information at the sub-national level. While this information cannot provide a full picture of the national situation, it is nevertheless likely to provide insights that are relevant to the development of a national marketing strategy. These key additional data sources are: 1) Family Planning in Uttar Pradesh: A Review of Secondary Research Focused on Contraceptive Social Marketing by Social and Rural Research Institute (1994); 2) The 1993 Condom Use Survey[14] conducted by Operations Research Group (ORG) and Family Health International (FHI); 3) the 1996 Contraceptive Use Survey conducted by Marketing and Research Group (MARG)[15]; 4) 20 focus group discussions moderated by Social and Rural Research Institute (SRI)[16]; 5) the 1996 Opportunities and Barriers to Contraceptives Uptake in Orissa through Social Marketing report by AIMS Research (1996)[17]; and 6) Results of the Price Elasticity Study[18] of the Masti Condoms by Marketing Business Associates.

[13] The data from the 1992-93 NFHS pertain to ever-married and currently married women of reproductive age and are representative of all-India.

[14] Surveyed a representative sample of currently married men in three northern states: Haryana, Rajasthan, and Uttar Pradesh. These three states cover approximately 25 percent of the Indian population.

[15] Random sample survey of currently married men (1251) and women (1333) in five districts in Uttar Pradesh: 1) Basti; 2) Deoria; 3) Agra; 4) Muradabad; and 5) Kanpur. These districts are characterized by relatively high contraceptive prevalence levels and are not representative of all Uttar Pradesh or the country on the whole.

[16] Separate discussions were held with men aged 25-40 years and women aged 16-25 years in 1994.

[17] The survey covered both consumers (men and women) and health providers (doctors and ANMs).

[18] 1,895 respondents were interviewed in Delhi, Lucknow, Jaipur, and Muzzafar Nagar.

ASSESSMENT BY METHOD TYPE

A. Condoms: Rural Sector

1. Current Condom Use

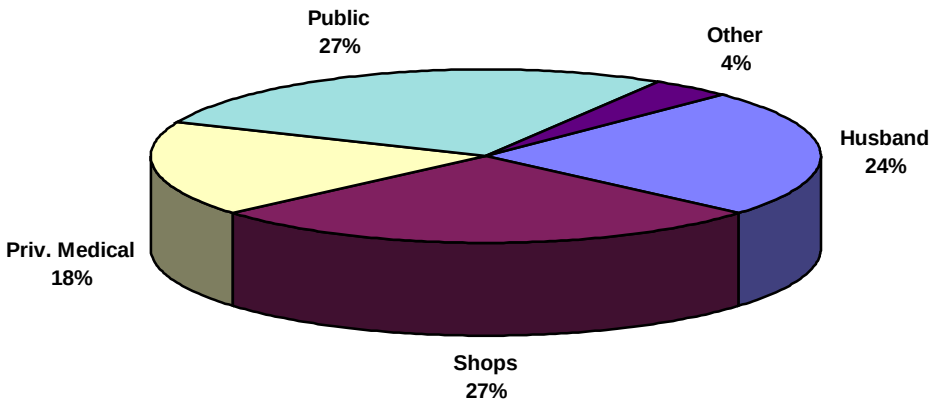
According to the 1992-93 NFHS, 4.6 percent of currently married women in rural India have ever used condoms (Table 1). The data also show that only about one-fourth of eligible couples who have ever used condoms to avoid pregnancy currently use them.

Table 1. Percentage of Currently Married Women of Reproductive Age (MWRA) Who Have Ever Used Condoms, Rural India, 1992-93 NFHS.

	Rural
Currently Use	1.2%
Ever Used	4.6%
% of Ever Users Who Currently Use	26.1%

The private sector (medical and shops) is source of supply for condoms for a significant number of contracepting women in rural areas.[19] More than a quarter of rural condom users obtain condoms from a public sector provider (Figure 1).

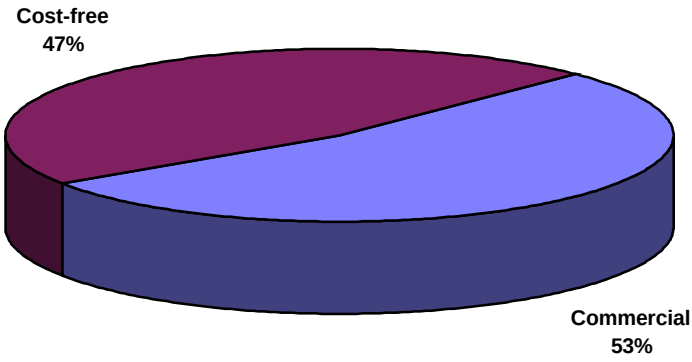
Figure 1: Source of Supply for Women of Reproductive Age Who Use Condoms in Rural Areas, 1992-93 NFHS



[19] Note that in the previous section ("Market Size: Past, Present, and Future"), the definition of the private sector in the case of condoms included shops, and "other" sources were distributed according to the distribution of women who reported their source as public or private.

Similarly, results from the 1993 ORG/FHI Condom Use Survey show that little over half of rural male condom users get their supplies from commercial sources (Figure 2).

Figure 2: Source of Supply For Rural Men Aged 16-40 Who Use Condoms: Haryana, Rajasthan, and Uttar Pradesh, 1993ORG/FHI Consumer Use Survey



The survey data also indicates that rural condom users are brand conscious in their purchases.[20] In rural areas, over 80 percent of men who purchase condoms ask for a specific brand (see Table 2). The Condom Use Survey data also indicate strong "shop loyalty" among rural condom purchasers (see Table 3). The vast majority of rural purchasers report that they always purchase their condoms at the same shop. The data indicate that lack of knowledge about alternative outlets is *not* the reason for this loyalty, for 95 percent of rural purchasers report that they are aware of other outlets (see Table 3). An alternative explanation offered by ORG/FHI (1993) is that purchasers may become comfortable with a particular salesperson or shop environment under what, for many, represents an embarrassing circumstance (see Table 7).

Table 2. Percent Distribution of Currently Married Male Condom Purchasers by Brand Requested in Rural Areas: Haryana, Rajasthan, and Uttar Pradesh, 1993 ORG/FHI Condom Use Survey	
At Time Of Purchasing Condoms	
Asks for a specific brand by name	83.0
Asks for any brand	17.0
Either	0.8
Total	100.8

[20] 1993 ORG/FHI Condom Use Survey

Table 3. Percent Distribution of Currently Married Male Condom Purchasers by Place of Purchase, Outlet Awareness in Rural Areas: Haryana, Rajasthan, and Uttar Pradesh, 1993 ORG/FHI Condom Use Survey	
Where Usually Buy?	
Always the same shop	88
Different shop	12
Total	100
Aware of Other Outlets?	
Yes	95
No	5
Total	100

Table 4 shows trends in market share by brand for rural India as reported in a study by ORG/FHI (1993). The data show that over time Nirodh has lost market share, although it still maintains the highest share of the market. Nirodh's loss in market share in rural areas appears to be due primarily to a rise in sales of Nirodh Deluxe. The sales of Masti condoms also have increased significantly. In 1988, approximately 3 million pieces were sold in urban and rural areas, which increased to 35 million pieces in 1995.[21]

Table 4. Trends in Market Share (% Distribution of Sales) of Leading Condom Brands in Rural Areas: Selected Years				
Brand	**1984**	**1986**	**1988**	**1990**
Nirodh	96	80	62	55
Nirodh Deluxe	1	15	28	33
Kohinoor	2	3	7	6
All Other	1	2	3	6
Total	100	100	100	100

Source: ORG/FHI 1993.

2. Knowledge and Awareness as a Potential Barrier

The NFHS measures two types of contraceptive knowledge: 1) spontaneous knowledge (i.e., the respondent mentions the method as a way to avoid pregnancy without prompting from the interviewer), and 2) prompted knowledge (i.e., the respondent recognizes the method as a way to avoid pregnancy only after it is mentioned by the interviewer). Table 5 presents the NFHS results on knowledge about condoms among currently married women in rural India. About half of the women interviewed had heard of condoms. Thus, to the extent that condoms are marketed to women, raising awareness is a priority in the rural sector.

Table 5. Percentage of Currently Married Women of Reproductive Age Who Have Heard of Condoms, Rural India, 1992-93 NFHS	
Unprompted	18.7
Prompted	31.5
Total	50.2

Information on contraceptive knowledge among men is not available at the national level. However, the 1993 ORG/FHI Condom Use Survey does provide information on condom brand awareness among men at the sub-national level (Haryana, Rajasthan, and Uttar Pradesh). The data show that knowledge of the Nirodh brand is universal in rural areas, which suggests that knowledge of condoms among men in these three states is also universal (see Table 6). Thus, available data indicate that awareness is *not* a barrier to condom use among men.

Table 6. Percentage of Currently Married Rural Men Who Have Heard of Condoms by Brand, Haryana, Rajasthan, and Uttar Pradesh, 1993 ORG/FHI Condom Use Survey	
Nirodh	99.9
Nirodh Deluxe	35.3
Nirodh Super Deluxe	17.1
Kohinoor	16.7
Kohinoor Fiesta	2.5
Masti	31.2
Sawan	1.7
Mood	1.0
Bliss	0.5
Champ	0.3
Durex	1.9
Durapak	0.5

3. Attitudes and Perceptions as Potential Barriers

Positive attitudes and perceptions about a contraceptive method are crucial for its acceptance by men and/or women. Although, data are not available on attitudes and perceptions about condoms in rural areas. Data from the 1993 ORG/FHI Condom Use Survey indicate that men in India do not hold many of the negative attitudes about condoms that are common in other countries (see Table 7). For example, the survey finds that the majority of men who have ever used condoms do not find condoms to be a "hassle" to use (85 percent) and do not think that condoms prevent sexual enjoyment (64 percent). Moreover, never-users for the most part are unsure of their perceptions about condoms, which suggests that negative attitudes about condoms are *not*

[21] PSI Personal Communication.

responsible for their non-use of this method. The lack of fully-formed attitudes about condoms among non-users represents a tremendous opportunity to create positive images of condoms, which is much easier than changing existing opinions.

The data in Table 7 indicate that among the perceptions explored in the 1993 ORG/FHI Condom Use Survey, at least three may represent important barriers to greater use of this method: 1) the widespread perception that condoms are not regularly available; 2) the commonly held view that condoms are difficult to hide from children; and 3) the perception that condoms are embarrassing to buy.

Table 7. Perception of Condoms Among Ever Users and Never Users (Percent Distribution), Haryana, Rajasthan, and Uttar Pradesh, 1993 ORG/FHI Condom Use Survey

Perception	User Status	
	Current or Past Users	Never Users
Hassle to use		
Agree	13.9	5.5
Disagree	85.1	8.7
Not sure	1.0	85.8
Does not prevent sexual enjoyment		
Agree	64.3	6.9
Disagree	32.3	7.2
Not sure	3.4	85.9
Liked by Women Also		
Agree	73	10
Disagree	16	8
Not sure	11	83
Embarrassing to buy		
Agree	43.1	52.3
Disagree	56.1	29.1
Not sure	0.8	18.6
All Brands are similar		
Agree	18	9
Disagree	52	19
Not sure	30	72

Table 7 Continued. Perception of Condoms Among Ever Users and Never Users (Percent Distribution), Haryana, Rajasthan, and Uttar Pradesh, 1993 ORG/FHI Condom Use Survey		
Perception	**User Status**	
	Current or Past Users	**Never Users**
Difficult to discard after use		
Agree	15	13
Disagree	85	12
Not sure	-	74
Embarrassing to see TV ad		
Agree	39.3	30.9
Disagree	42.5	22.2
Not sure	18.1	46.3
Not Regularly Available		
Agree	95	71
Disagree	4	7
Not sure	1	22
Not a Reliable Method		
Agree	9	6
Disagree	90	64
Not sure	1	30
Difficult to Hide Away from Children		
Agree	59	50
Disagree	41	16
Not sure	-	34

Note: Disaggregated data for urban/rural not available.

The data in Tables 8 and 9 summarize perceptions of condom quality by brand among male condom users in the rural areas of Haryana, Rajasthan, and Uttar Pradesh. The data indicate that perceived effectiveness is a concern among users, especially users of lower priced and freely distributed brands. The 1993 ORG/FHI Contraceptive Use Survey finds that about one-third of rural users of the cost-free Nirodh brand inquired about effectiveness. This was less of a concern for purchasers of commercial brands (fewer than 10 percent asked about effectiveness). The same survey finds that men are less likely to agree that the lowest priced condom brands (i.e., Nirodh

brands) are free of defects than they are to agree that higher priced condom brands are free of defects (see Table 9).

Table 8. Percentage of Male Condom Purchasers in Rural Areas Who Asked Provider About the Effectiveness of Condoms in Preventing Pregnancy (% Distribution): Haryana, Rajasthan, and Uttar Pradesh, 1993 ORG/FHI Condom Use Survey

	Cost-free Supply Users	Commercial Source Users
Asked	35	9
Did Not Ask	65	91
Total	100	100

Table 9. Percentage of Male Condom Users Who Agree that Condom is Free of Defects by Brand: Haryana, Rajasthan, and Uttar Pradesh, 1993 ORG/FHI Condom Use Survey

	Nirodh (free)	Nirodh	Nirodh Deluxe	Kohinoor	Masti	Other
% Agree Brand Free of Defects	35.1	33.3	62.1	71.4	72.4	73.7

Note: Disaggregated data for urban/rural not available.

Retailer opinions of brand quality also suggest an association between price and perceptions of quality**.** Table 10 shows that the percentage of retailers who rate the quality of the highest priced brands (e.g., Kohinoor Fiesta and Bliss) as "good" is higher than the percentage of retailers who rate the quality of lowest priced brands (e.g., Nirodh, Nirodh Deluxe and Sawan) as good. An exception to this pattern is the socially marketed Sawan brand in the rural sector. Sawan is more expensive than either Nirodh Deluxe or Nirodh Super Deluxe (ORG 1996), yet the percentage of retailers in rural areas who rate its quality as good is lower than the percentage who rate the less expensive Nirodh brands as good.

Table 10. Perceptions of Quality as Reported by Retailers

BRAND	Percent Rating "Good"
Kohinoor Fiesta	100.0
Bliss	100.0
Kohinoor	98.0
Imported	89.0
Masti	99.0
Sawan	63.6
Nirodh Deluxe	82.8
Super Deluxe Nirodh	92.8
Nirodh	71.8

Note: Disaggregated data for urban/rural not available.

4. Availability as a Potential Barrier

Existing data on condom availability show a lack of penetration in rural commercial markets:

- In the three states surveyed by ORG/FHI (1993), only 19 percent of retail outlets carry condoms

- In these same three states, ORG/FHI (1993) found that the rank order of rural retail outlets carrying condoms is: chemists (86.7 percent); general stores (60.9 percent); grocers (16.6 percent); and others (6.4 percent).

- While chemist shops represent the principal retail outlet for condoms, they only account for 3.3 percent of potential rural outlets (ORG-Core)

- The Condom Use Survey conducted by ORG/FHI shows that 95 percent of users and 71 percent of non-users state that condoms are not regularly available (see Table 7).

The especially low level of penetration in the rural sector suggests that one reason that rural men are less likely than urban men to obtain condoms from the commercial sector is the relative lack of availability.

5. Price as a Potential Barrier

According to the September 1996 ORG retail audit in Uttar Pradesh, commercially available condoms range in price from .30 Rs. to 2.67 Rs. per condom. The Available data do not allow us to discern the extent to which price is a barrier to use among non-users.[22] However data from the 1993 ORG/FHI survey suggest that price does segment the market among users. Table 11 shows that for the most part, those with lowest education and income levels use the least expensive brands (free Nirodh and Nirodh); those with intermediate levels of income and education use an intermediate priced condom (Nirodh Deluxe); and those with the highest level of income and education use the most expensive brands (Kohinoor). Users of Masti represent an exception to this pattern. Masti is more expensive than Nirodh Deluxe but appears to appeal to men with a similar level of income and educational attainment. This suggests that the Masti brand has been successful at marketing to consumers who would otherwise be likely to use a lower priced brand.

[22] According to the 1995 MARG UP Survey, most users (93%) and non-users (83%) believe that the condoms are in expensive. The Masti Condom Price Elasticity study also showed a minimal effect on market shares due to a price change.

Table 11. Socioeconomic Characteristics of Condom Users by Leading Brands Currently Purchased/Used: Haryana, Rajasthan, and Uttar Pradesh, 1993 ORG/FHI Condom Use Survey.							
Characteristic	**Nirodh (free)**	**Nirodh**	**Nirodh Deluxe**	**Kohinoor**	**Masti**	**Other**	**Any**
Education (mean yrs)	7.3	6.5	8.7	11.0	9.9	10.5	8.4
Family Income (median monthly in Rs.)	1,000	908	1,144	1,212	1,124	1,226	1,025

Note: Disaggregated data for urban/rural not available.

While price may be somewhat of a deterrent to greater use of higher priced condoms, the following information suggests that many users are nevertheless willing and able to pay more.

- During the past year (between 9/95 and 9/96) the commercial share of the condom market more than doubled while socially marketed brands experienced a decline in market share due to a decline in government procurements (see Table 13). This shift in market share suggests that many consumers of lower priced brands switched to higher priced brands when the lower priced brands became unavailable. If this supposition is correct, it suggests an ability and willingness to pay for higher priced brands among many who use lower priced brands.

- Data from the 1993 ORG/FHI Condom Use Survey (see Table 12) suggest that a majority of men would continue with the same brand rather than switch to a less expensive brand (sample limited to Haryana, Rajasthan, and Uttar Pradesh) if condom prices were to increase by 50 paisa (a 70% increase over the prevailing average retail price at that time).

Table 12: Willingness to Buy if Price Increased By 50 Paisa, in Rural Areas of Haryana, Rajasthan, and Uttar Pradesh, 1993 ORG/FHI Condom Use Survey	
Amount (Rs)	**Current Condom Users (%)**
Would continue buying	83.8
Would discontinue/switch to cheaper brand	10.5
Uncertain	5.7

TABLE 13: MARKET SHARE: CONDOMS

Sector		Market Share September'95 Vol. / Val.		Market Share September'96 Vol. / Val	
Contraceptive Social Marketing					
Nirodh (MOH&FW)	(MRP Rs.1.50-2 for 5's)	46.1	18.0	20.1	6.9
Bliss (PSS)	(MRP Rs.6.00 for 4's)	0.2	0.3	1.0	2.3
Sawan (PSS)	(MRP Rs.4.00 for 4's)	1.6	1.3	4.7	2.4
Masti (PSI)	(MRP Rs.5.00 for 4's)	27.2	27.4	9.0	5.7
Tamanna & Dream (RBD)	(MRP Rs.4-6 for 4's)	2.6	3.5	13.8	15.8
	Total of CSMP	**77.7**	**50.5**	**48.6**	**33.1**
Private Sector Brands					
London Rubber Company (Price of all brands range between Rs.6-7 for 3's)		14.2	27.3	28.0	33.9
Hindustan Latex Limited (Price of all brands range between Rs.4-5 for 3's)		0.8	1.6	3.3	4.3
Polar Latex Limited (Price of all brands range between Rs.4-5 for 3's)		0.5	0.3	1.9	3.1
J. K. Chemicals Limited					
(Mid-priced brand: Midnight Cowboy MRP Rs.5.00 for 3's)		0.2	0.4	0.6	0.7
(High priced brand: Kamasutra MRP Rs. 8.00 for 3's)		2.5	8.2	5.9	12.7
(JKCL's other brands)		0.4	1.0	4.3	5.5
J.K. Chemicals Limited's Market		3.1	9.6	10.8	18.9
	Total of Private Sector	**18.6**	**38.8**	**44.0**	**60.0**
	Imported	**6.7**	**10.7**	**7.4**	**6.9**

*Note: MRP is acronym for Maximum Retail Price

Source: ORG U.P. Retail Audit - September 1995/September 1996

6. Policy Environment

The following policy constraints affect the promotion and price structure of condoms:

- Advertising of contraceptives, under a recent government ruling, is currently restricted to after 23:30. This regulation may soon be rescinded, though the timing is uncertain.

- The government currently levies a 10% excise tax on packaging.

- Social marketing and government distribution of condoms is highly subsidized. The government procures condom commodities from manufacturers and re-sells them to marketing organizations below the original procurement price (ORG/FHI 1993). The marketing companies package, distribute and promote the products under various brand names. Ideally, the customer benefits from this tremendous subsidy. In reality, however, the government is, in effect, the largest consumer and many manufacturers are reluctant to finance marketing and distribution directly to the consumer as it is a lower volume, less lucrative business than the current arrangement. The current system also leaves room for considerable product "leakage", so that not all of the product procured by the government actually ends up on the retail shelves or the consumer's hands. This "leakage" has been estimated to as high as 60% (FHI/ORG, 1993).

7. Summary of Potential Barriers and Non-barriers

This section has identified the following as potential barriers to expanded condom use in rural areas of India:

- Knowledge and awareness among women
- Perceptions of availability
- Actual availability
- Embarrassment with respect to purchase
- Policies (advertising restrictions, tax, and government subsidy)

Available data do not allow an assessment of price a potential barrier to the increased use of condoms in as a category. Although price does appear to segment those who use condoms by socio-economic level, many users appear to be willing and able to pay more. Thus, price does not appear to be a strong barrier *among users* to the use of higher priced brands.

The analysis finds that the following do not appear to be barriers to increased condom use:

- Knowledge and awareness (men only)
- Male attitudes towards condoms
- Perceptions of quality

8. Marketing Implications

- Develop advertising campaigns designed to raise awareness among women in rural areas
- Expand distribution beyond chemist shops, especially in rural areas
- Reduce embarrassment surrounding purchase by using social marketing approaches that have been successful in other countries (e.g., the promotion of condoms with other routinely purchased items such as razor blades).

- Work with government officials to remove advertising restrictions and taxes

B. Condoms: Urban Sector

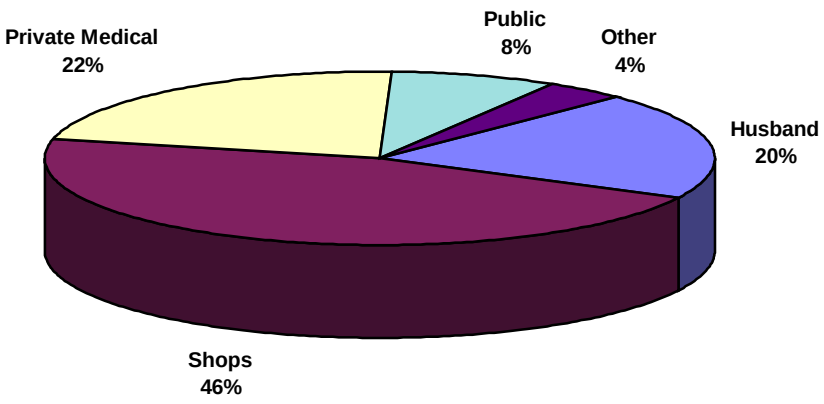
1. Current Condom Use

A larger proportion of currently married women of reproductive age in urban areas have ever used condoms compared to women in the rural areas. The data show that about 41 percent of eligible couples who have ever used condoms to avoid pregnancy currently use them (see Table 14).[23]

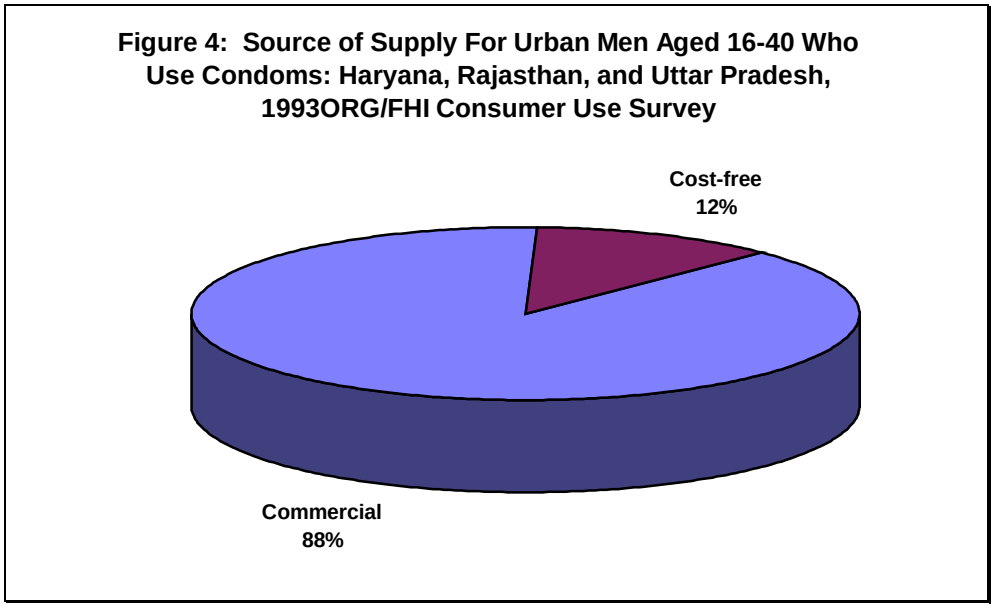
Table 14. Percentage of Currently Married Women of Reproductive Age (MWRA) Who Have Ever Used Condoms, Urban India, 1992-93 NFHS.	
Currently Use	5.8%
Ever Used	14.3%
% of Ever Users Who Currently Use	40.6%

The private sector (medical and shops) is the major source of condoms for contracepting women in urban areas (see Figure 3).[24] A survey among men also reports that predominant sources of condoms in urban areas are commercial outlets (see Figure 4).[25]

Figure 3: Source of Supply for Women of Reproductive Age Who Use Condoms in Urban Areas, 1992-93 NFHS



[23] 1992-93 NFHS
[24] 1992-93 NFHS
[25] 1993 FHI/ORG Condom Use Survey



Like in rural areas, the majority of urban men who purchase condoms ask for a specific brand (see Table 15). Similarly, data also indicate that majority of urban men always purchase their condoms at the same shop (see Table 16).

Table 15. Percent Distribution of Currently Married Male Condom Purchasers by Brand Requested in Urban Areas: Haryana, Rajasthan, and Uttar Pradesh, 1993 ORG/FHI Condom Use Survey	
At Time Of Purchasing Condoms	
Asks for a specific brand by name	84.0
Asks for any brand	16.0
Either	0.5
Total	100.5

Table 16. Percent Distribution of Currently Married Male Condom Purchasers by Place of Purchase, Outlet Awareness in Urban Areas: Haryana, Rajasthan, and Uttar Pradesh, 1993 ORG/FHI Condom Use Survey	
Where Usually Buy?	
Always the same shop	90
Different shop	10
Total	100
Aware of Other Outlets?	
Yes	99
No	0.5
Total	100

As in rural areas, the market share of Nirodh condoms has declines in urban areas too (see Table 17). Market shares of socially marketed brands in addition to Nirodh Deluxe have seen strong gains.

Table 17. Trends in Market Share (% Distribution of Sales) of Leading Condom Brands in Urban Areas: Selected Years

Brand	1984	1986	1988	1990
Nirodh	59	43	28	16
Nirodh Deluxe	3	29	35	36
Kohinoor	20	15	16	21
All Other	18	13	21	27
Total	100	100	100	100

2. Knowledge and Awareness as a potential barrier

Unlike in the rural areas, the knowledge about condoms among currently married women in urban India is high. About eighty percent of the women interviewed had heard of condoms (Table 18).

Table 18. Percentage of Currently Married Women of Reproductive Age Who Have Heard of Condoms, Urban India, 1992-93 NFHS

Unprompted	48.7
Prompted	31.5
Total	80.2

As in the rural areas, knowledge of the Nirodh brand is universal in urban areas, which suggests that knowledge of condoms among men is also universal (see Table 19). Thus, available data indicate that awareness is *not* a barrier to condom use among men.

Table 19. Percentage of Currently Married Urban Men Who Have Heard of Condoms by Brand, Haryana, Rajasthan, and Uttar Pradesh, 1993 ORG/FHI Condom Use Survey	
Nirodh	100.0
Nirodh Deluxe	76.9
Nirodh Super Deluxe	47.4
Kohinoor	55.9
Kohinoor Fiesta	15.6
Masti	73.6
Sawan	7.7
Mood	8.1
Bliss	3.2
Champ	2.9
Durex	11.4
Durapak	3.9

3. Attitudes and Perceptions as Potential Barriers

As was true in the rural analysis, the results from the urban analysis also suggest at least three important barriers to greater use of condoms in urban areas: 1) the widespread perception that condoms are not regularly available; 2) the commonly held view that condoms are difficult to hide from children; and 3) the perception that condoms are embarrassing to buy (see Table 7).

The data from urban areas of Haryana, Rajasthan, and Uttar Pradesh suggest that perceived effectiveness is a concern among users, especially users of lower priced and freely distributed brands (Table 20). As was the case in the rural areas, a larger proportion of the urban users inquired about the effectiveness of free condoms in preventing pregnancy.

Table 20. Percentage of Male Condom Purchasers in Urban Areas Who Asked Provider About the Effectiveness of Condoms in Preventing Pregnancy (% Distribution): Haryana, Rajasthan, and Uttar Pradesh, 1993 ORG/FHI Condom Use Survey		
	Cost-free Supply Users	**Commercial Source Users**
Asked	24	5
Did Not Ask	76	95
Total	100	100

As presented earlier in the rural analysis, the percentage of retailers who rate the quality of the highest priced brands (e.g., Kohinoor Fiesta and Bliss) as "good" is higher than the percentage of retailers who rate the quality of lowest priced brands (e.g., Nirodh, Nirodh Deluxe and Sawan) as good (see Table 10).[26]

4. Availability as a Potential Barrier

As in the rural sector, existing data on condom availability show a limited penetration in urban commercial markets:

- In the three states reviewed by ORG/FHI (1993), only 41 percent of retail outlets carry condoms
- In the same three states, ORG/FHI (1993) found that the rank order of urban retail outlets carrying condoms is: chemists (93.9 percent); general stores (72.8 percent); grocers (32.1 percent); and others (24 percent).
- While chemist shops represent the principal retail outlet for condoms, they only account for 6.3 percent of potential urban outlets (ORG-Core)
- The Condom Use Survey conducted by ORG/FHI shows that 95 percent of users and 71 percent of non-users state that condoms are not regularly available (see Table 7).

5. Price as a Potential Barrier

As was true in the rural analysis, the price may be somewhat of a deterrent to greater use of higher priced condoms in urban areas. However, the data indicate that many users are nevertheless willing and able to pay more (see Tables 13 and 21).

Table 21: Willingness to Buy if Price Increased By 50 Paisa, in Urban Areas of Haryana, Rajasthan, and Uttar Pradesh, 1993 ORG/FHI Condom Use Survey

Amount (Rs)	Current Condom Users (%)
Would continue buying	82.2
Would discontinue/switch to cheaper brand	11.4
Uncertain	6.4

6. Policy Environment

[26] Urban-rural breakdown not available.

The policy constraints affecting the promotion and price structure of condoms are similar in both urban and rural areas. These include: restricted hours for advertising on electronic media; 10 percent excise tax on packaging; and competition with highly subsidized socially marketed and free condoms.

7. Summary of Potential Barriers and Non-barriers

The major barriers to expanded condom use in urban areas include:

- Perceptions of availability
- Actual availability
- Embarrassment with respect to purchase
- Policies (advertising restrictions, tax, and government subsidy)

The analysis finds that the following do not appear to be barriers to increased condom use:

- Knowledge and awareness (men only)
- Male attitudes towards condoms
- Perceptions of quality

8. Marketing Implications

- Develop advertising campaigns designed to raise awareness among women in urban areas
- Expand distribution beyond chemist shops
- Reduce embarrassment surrounding purchase by using social marketing approaches that have been successful in other countries (e.g., the promotion of condoms with other routinely purchased items such as razor blades).
- Work with government officials to remove advertising restrictions and taxes

C. Pills: Rural Sector

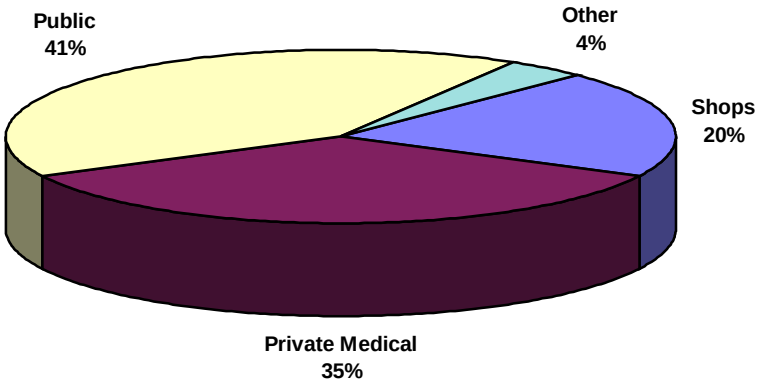
1. Current Pill Use

Table 22 shows the percentage of currently married women in rural areas who have ever used and who are currently using pills.[27] The data show that in rural India, approximately 22 percent of currently married women who have ever used pills to avoid pregnancy currently use them.

Table 22. Percentage of Currently Married Women of Reproductive Age (MWRA) Who Have Ever Used Pills, Rural India, 1992-93 NFHS.	
Currently Use	0.9
Ever Used	4.1
% of Ever Users Who Currently Use	22.0

Figure 5 shows that, as is the case with condoms, the private sector (medical and shops) is the major source for pills to women in rural areas. Approximately, 55 percent of women get their pill supplies from private sector.[28]

Figure 5: Source of Supply for Women of Reproductive Age Who Use Pills in Rural Areas, 1992-93 NFHS



[27] 1992-93 NFHS
[28] 1992-93 NFHS

2. Knowledge and Awareness as a Potential Barrier

In rural areas, only fifty-nine percent of the married women of reproductive age were aware of pills as a method to prevent pregnancy (see Table 23). Thus, in the rural sector, lack of awareness may be a barrier to the increased use of pills.

Table 23. Percentage of Currently Married Women of Reproductive Age Who Have Heard of Pills by Residence, Rural India, 1992-93 NFHS	
Unprompted	25.7
Prompted	33.7
Total	59.4

Knowledge of correct use and misconceptions of health consequences are also a problem among consumers. In a review of family planning in Uttar Pradesh (Khan and Patel 1993), only about a third of eligible couples had correct knowledge of pill use. A significant number of women have misconceptions and/or concerns with the use of pills (1988/89 Third All-India Survey). These include: unable to work hard (20%); menstrual problems (15%); causes headaches (29%); causes nausea (26%); causes chronic health problems (24%).

3. Attitudes and Perceptions as Potential Barriers

Data from the 1992-93 NFHS indicate that the majority of women (rural and urban combined) who use the pill in India do not perceive side effects (80 percent). Although the NFHS does not provide perceptions of side effects among non-users, the 1996 MARG Contraceptive Use Survey of women in five districts in Uttar Pradesh does. Like the NFHS, the MARG survey finds that the majority (75 percent) of pill users do not perceive any explicit hazards of the pill (see Table 24). By contrast, nearly 40 percent of non-users associate the pill with negative side effects. The finding that non-users are more likely to associate negative side effects with the pill suggests that these perceptions may serve as a barrier to use.[29] It should be noted that at least some of the negative perceptions among non-users are likely to be based on previous experience with pills.

[29] Note that focus group discussion moderated by SRI (1995) suggest that women perceive Mala - D and Mala - N (the least expensive brands) as having the most side effects.

Table 24. Percent Distribution of Currently Married Women by Perceived Hazards of Pill Use, 5 Districts in Uttar Pradesh, 1996 MARG Contraceptive Use Survey			
Perceived Hazard	**Users**	**Non-Users**	**Total**
Headache/Sickness	20	27	26
Weight Gain	4	11	10
Not Effective Against Pregnancy	0	3	3
Nothing/Can't Say	76	59	61
Total	100	100	100

Note: Disaggregated data for urban/rural not available.

A 1992 survey of physicians in Uttar Pradesh conducted by SRI indicates that many health providers also harbor negative perceptions of pill side effects. Over one-fourth of physicians interviewed did not advise their patients to take oral contraceptives, with "too many side effects" (53 percent) most often given as the reason for not advising pill use. In addition, 18 percent of the physicians interviewed doubted the efficacy of pills, and 8 percent acknowledged that they were generally unfamiliar with pills, so could not properly advise patients about their use. A recent survey conducted in Orissa shows similar concerns and biases among providers about pills.[30]

4. Availability

Currently available data do not provide information on the availability of pills in the market place.

5. Price as a Potential Barrier

Table 25 shows the price range for pills in Uttar Pradesh according to the ORG retail audit. Currently available data do not provide information on income by user status, willingness to pay, urban/rural residence, or other indicators that might help determine whether price is a barrier to use. The 1996 MARG Contraceptive Use Survey did, however, ask currently married women whether they agree that pills are inexpensive. The majority of both users and non-users agreed that pills were inexpensive (84% and 71%, respectively). However, it is unclear as to whether respondents were referring to a particular brand (e.g., Mala - N or Mala - D) or to the whole pill category.

After conducting focus group discussions in Uttar Pradesh on the subject of pills, SRI (1995) concluded the following:

[30] Opportunities and barriers to contraceptive uptake in Orissa through social marketing. AIMS 1996.

> On the subject of pills, opinions were divided. Some women felt that pills should be available at low cost while others believed that cost was not an important factor, so far as the quality was good and the pill did not cause any adverse effects (SRI 1995).

SRI (1995) provides the following excerpts from the discussions as examples of the mixed sentiments towards price:

> "We will not think of the price if the benefit is more"

> "In my opinion its price is important because we have to continue taking it for a long periods - till the time we don not want the (next) child. Its price should be such that we can afford it. It should not be very costly"

Table 25. MARKET SHARE

Oral Contraceptives*

		Market Share			
		Sept'95		Sept'96	
		Vol.	/ Val.	Vol.	/ Val.
Contraceptive Social Marketing					
MALA-D (MOH&FW)	*(MRP Rs. 2.00 for a pack of 28 tabs)*	51.8	11.1	40.9	7.6
MOTI (RBD)	*(MRP Rs. 6.00 for a pack of 28 tabs)*	0.8	0.5	0.9	0.5
PEARL (PSI)	*(MRP Rs. 5.00 for a pack of 28 tabs)*	5.8	3.1	7.3	3.4
ECROZ (PSS)	*(MRP Rs. 6.00 for a pack of 28 tabs)*	1.0	0.7	3.4	1.8
	Total	**59.4**	**15.4**	**52.5**	**13.3**
Private Sector					
German Remedies Ltd.	*(MRP RANGING FROM Rs.22.00 TO 26.49)*	11.7	29.4	10.1	21.9
Wyeth Labs. Limited	*(MRP ranging from Rs.18.50 to 23.40)*	23.4	41.0	30.5	46.3
Infar India Limited	*(MRP ranging from Rs.14.40 to 25.00)*	1.0	2.4	1.2	3.4
	Total	**36.1**	**72.8**	**41.8**	**71.6**
Non Steroidal Contraceptives *(MRP ranging from Rs.12 to 26.44)*		**4.5**	**11.8**	**5.7**	**15.1**

*Note: MRP is acronym for Maximum Retail Price

Source: ORG U.P. Retail Audit - September 1995/September 1996

The most compelling evidence available that consumers are somewhat flexible on the issue of price when it comes to actual purchases of the pill comes from the ORG retail audit. As was the case with condoms, the availability of the government's socially marketed brand, Mala - D, declined as government procurements declined during 1995. Between September 1995 and September 1996, Mala - D's market share declined by 21 percent. Over this same period, the share of the commercial market for pill increased by a little over 15 percent. This suggests that many Mala - D users may have switched to more expensive commercial pill brands as Mala - D became less available. If this is correct, it suggests a willingness and ability to pay higher prices for the pill among at least some users of the least expensive brands.

6. Policy Environment

A number of policy level constraints affect the promotion, production and retail price of hormonal contraceptives in both rural and urban areas. These include:

- Broadcast advertising is restricted to after 23:30H.
- The government imposes a 65% import duty on hormones and 10% excise tax on packaging.
- As with condoms, social marketing and government distribution of pills is highly subsidized. This has the effect of "crowding out" the private sector.

7. Summary of Potential Barriers and Non-barriers

Based on available information, the following are potential barriers to expanded pill use in rural areas:

- Awareness
- Incorrect consumer knowledge regarding pill use
- Perceptions of negative side effects among non-users and providers
- Policies (advertising restrictions, tax, and government subsidy)

Available data do not allow an assessment of availability or price as potential barriers to the increased use of pills as a category. However, data from Uttar Pradesh do show that the majority of women interviewed believe that pills are readily available. With respect to price, retail audits in Uttar Pradesh suggest that *among users*, price may not be a strong barrier to the use of more expensive brands.

8. Marketing Implications

- Develop advertising campaigns designed to raise awareness among rural women
- Develop well focused method-specific advertising campaign that emphasizes the safety, convenience and effectiveness of pills for family planning
- Address incorrect knowledge with respect to correct use through low literacy inserts

- Address negative perceptions of side effects through training of doctors and retailers.
- Work with government officials to remove advertising restrictions and taxes

D. Pills: Urban Sector

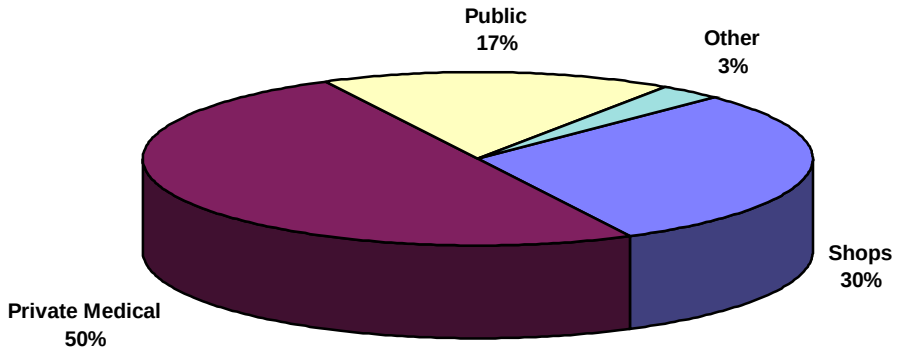
1. Current Pill Use

In the urban areas of India, approximately 22 percent of currently married women, who have ever used pills to avoid pregnancy, are currently using them (Table 26).[31] There are twice more women in urban areas compared to rural areas who have ever used as well as are currently using pills for avoiding pregnancy.

Table 26. Percentage of Currently Married Women of Reproductive Age (MWRA) Who Have Ever Used Pills, Urban India, 1992-93 NFHS.	
Currently Use	1.9
Ever Used	8.7
% of Ever Users Who Currently Use	21.8

A larger number of urban women compared to rural women get their oral contraceptive supplies from the private sector (chemists and other shops). Approximately, 80 percent of women get their pill supplies from private sector (Figure 6).

Figure 6: Source of Supply for Women of Reproductive Age Who Use Pills in Urban Areas, 1992-93 NFHS



[31] 1992-93 NFHS

2. Knowledge and Awareness as a potential barrier

Unlike the rural areas, the awareness of pills as a method to prevent pregnancy is high in the urban areas (Table 27). However, knowledge of correct use and misconceptions about the use of pills are similar in both urban and rural areas.

Table 27. Percentage of Currently Married Women of Reproductive Age Who Have Heard of Pills in Urban India, 1992-93 NFHS	
Unprompted	56.1
Prompted	29.4
Total	85.5

3. Attitudes and Perceptions as Potential Barriers

As discussed earlier, the majority of current pill users do not perceive side effects with its use. However, a large proportion of non-users of pills perceives negative side effects with the use of oral contraceptives. The data also show that a significant proportion of providers are biased against pills, and as a result do not advise pill use to their clients. Both provider biases and negative perceptions among current non-users serve as a barrier to the expanded use of pills in both urban and rural areas.

4. Availability as a Potential Barrier

Currently available data do not provide information on the availability of pills in the market place.

5. Price as a Potential Barrier

As discussed earlier in the rural sector analysis, the data show that there is a willingness and ability to pay higher prices for the pill among at least some users of the least expensive brands.

6. Policy Environment

As is true for the rural areas, similar policy level constraints affect the expansion of use of oral contraceptives in the urban areas. These include: restricted hours for advertising on electronic media; 65 percent import duty on hormones and 10 percent excise tax on packaging; and "crowding out" of private sector due to the availability of subsidized socially marketed and free oral contraceptives.

7. Summary of Potential Barriers and Non-barriers

Based on available information, the analysis finds that the following are potential barriers to expanded pill use in urban areas:

- Incorrect consumer knowledge regarding pill use
- Perceptions of negative side effects among non-users and providers
- Policies (advertising restrictions, tax, and government subsidy)

8. Marketing Implications

- Develop well focused method-specific advertising campaign that emphasizes the safety, convenience and effectiveness of pills for family planning
- Address incorrect knowledge with respect to correct use through low literacy inserts
- Address negative perceptions of side effects through training of doctors and retailers.
- Work with government officials to remove advertising restrictions and taxes

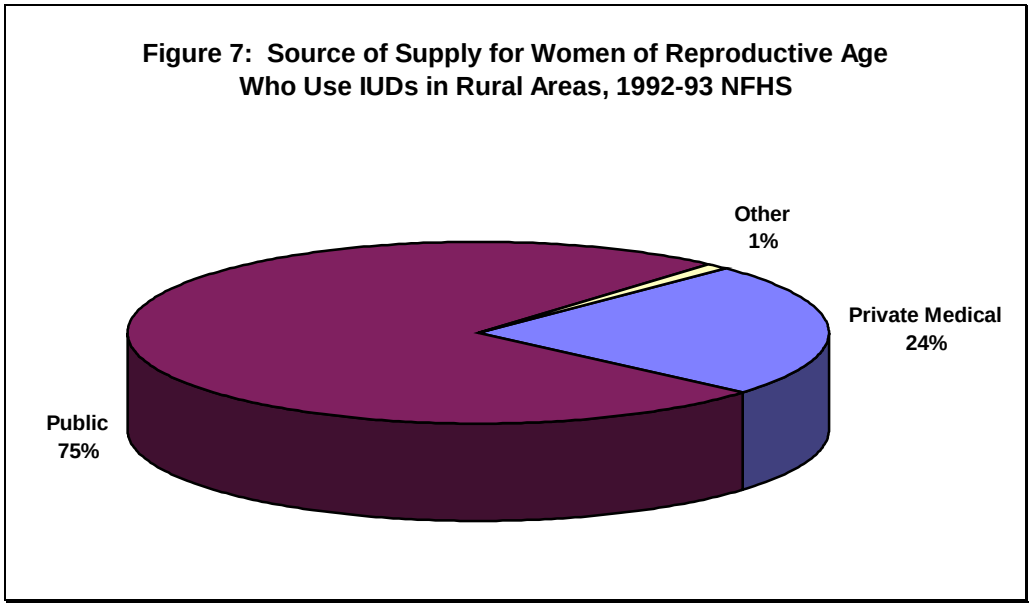
E. IUDs: Rural Sector

1. Current IUD[32] Use

In the rural areas, only a small proportion of currently married women have ever used IUDs for avoiding pregnancy (see Table 28). Approximately 37 percent of currently married women who have ever used IUDs to avoid pregnancy currently use them. The majority of rural women obtain their IUDs from the public sector institutions (see Figure 7).

Table 28. Percentage of Currently Married Women of Reproductive Age (MWRA) Who Have Ever Used IUDs, Rural India, 1992-93 NFHS.

Currently Use	1.2
Ever Used	3.2
% of Ever Users Who Currently Use	37.5



[32] Currently, the IUD market in India is dominated by the CuT-200. Although the CuT-380 is also manufactured in India, this product serves primarily an export market demand.

2. Knowledge and Awareness as a Potential Barrier

Only one-half of all rural women have heard or know about IUDs as a method to prevent pregnancy (Table 29). Thus, in the rural sector, lack of awareness may be a barrier to the increased use of IUDs.

Table 29. Percentage of Currently Married Women of Reproductive Age Who Have Heard of IUDs, Rural India, 1992-93 NFHS	
Unprompted	21.0
Prompted	31.9
Total	52.9

In a review of family planning in Uttar Pradesh (Khan and Patel, 1993), only 12% of eligible couples in rural UP knew how the IUD was used or inserted. To the extent that incorrect knowledge of IUD use leads to apprehension about trial, it may serve as a barrier to expanded use.

3. Attitudes and Perceptions as Potential Barriers

Data from the 1992-93 NFHS show that the majority of IUD users do not associate IUD use with side-effects (see Table 30). Of those who do experience problems, backache and excessive bleeding are the most common complaints.

Table 30. Percentage of Current Users of IUD who Have Had Problems in Using the Method, All-India, 1992-93 NFHS

Problem	Percent
No problems	81.1
Backache	6.5
Irregular periods	2.6
Excessive bleeding	7.8
Weakness/inability to work	3.0
Other	3.4

Note: Disaggregated data for urban/rural not available.

Currently available data do not provide information on the perceptions of non-users toward the IUD and, therefore, the extent to which negative perceptions about the IUD serve as a barrier to use is unclear. A 1992 focus group discussion moderated by SRI in rural Uttar Pradesh did find, however, that a number of women (most of whom were non-users) expressed concerns and apprehensions about IUD side effects. Respondents spoke of excessive bleeding, prolonged

bleeding, backache, stomachache, and also expressed concerns about the possible displacement of the device within the body. Though most admitted that these apprehensions were based on hearsay rather than personal experience, they nevertheless helped to form consumer perceptions of the product.

Some of the comments expressed by these participants are the following:

- *Someone in my mother's village … got the Copper-T put which caused a lot of bleeding.*
- *Copper-T causes bleeding. I am afraid to use it.*
- *I have heard of Copper-T, but I have also heard it causes bleeding*
- *Some say it suits them; others gain weight.*
- *It is a question of determination. If you are determined, then everything is okay.*
- *Someone got a Copper-T fitted. In spite of that, she conceived.*
- *My sister-in-law had it, but at present she is in the hospital due to this. The Copper-T got displaced and then it moved to the uterus and it started hurting her in the uterus. After that, she had a child, but that (Copper-T) did not come out even at the time of delivery.*

Provider bias is a major concern in expanding the use of IUDs in both rural and urban areas. A recent survey conducted in Orissa shows that providers have misconceptions about IUDs.[33] For example, a number of providers associate a host of menstruation-related disorders with use of IUDs. These include heavy bleeding, white discharge, uterine disorders, gynecological problems, backaches, PID, tumor, cancer, etc. Chronic vaginal infection leading to impairment of fertility is also linked to IUD use by some gynecologists.

4. Availability as a Potential Barrier

Currently available data do not provide information on the availability of IUDs in the market or on perceptions of availability.

5. Price as a Potential Barrier

Currently Multiload Cu 250, marketed by Infar (Organon) Pvt. Ltd., is only available through chemist shops at Rs.204.70. In addition to the high cost for the product, a woman not wanting to go to the public sector for insertion would have to pay a high priced OB/GYN to insert the IUD (approximately Rs.300). The insertion charges and medical examination fee varies from Rs.150 to Rs.300. This price structure suggests that, at least in the private sector, price represents a barrier to increased use of the IUD.

[33] Opportunities and barriers to contraceptive uptake in Orissa through social marketing. AIMS 1996.

6. Policy Environment

There are at least two policy level constraints that effect the promotion and price structure of IUDs:

- Advertising is restricted to after 23:30H.
- 10% excise tax on packaging

7. Summary of Potential Barriers and Non-barriers

Based on available information the analysis finds that the following are potential barriers to expanded IUD use:

- Awareness and incorrect consumer knowledge regarding IUD use
- Price (private sector)
- Policies (advertising restrictions and tax)

Available data do not allow an assessment of availability or perceptions of IUDs as a potential barrier to the increased use of IUDs as a category. However, information from focus group discussions suggest that concerns and fears about the use of this method exist among women and therefore may serve as a barrier to use.

8. Marketing Implications

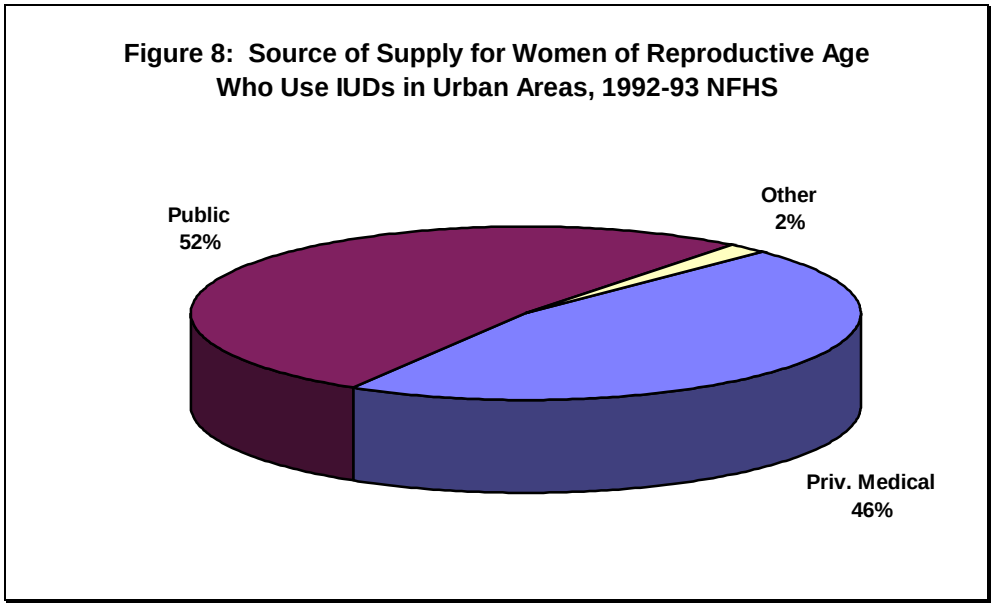
- Develop advertising campaigns to raise awareness among women in rural areas
- Develop well focused method-specific advertising campaign that addresses the most common concerns about IUDs
- Lower price through negotiations with manufacturers and providers (for insertion) and elimination of excise taxes on packaging
- Work with government officials to remove advertising restrictions

F. IUDs: Urban Sector

1. Current IUD Use

Unlike the rural women, more currently married urban women have ever used or are currently using this method of contraception. Approximately 37 percent of currently married women who have ever used IUDs to avoid pregnancy currently use them (Table 31). In the urban areas compared to the rural areas, a higher proportion of IUD users get their IUDs from private providers. Approximately, 46 percent of urban IUD users have received their method from private providers (Figure 8).

Table 31. Percentage of Currently Married Women of Reproductive Age (MWRA) Who Have Ever Used IUDs, Urban India, 1992-93 NFHS.	
Currently Use	1.9
Ever Used	5.1
% of Ever Users Who Currently Use	37.3



2. Knowledge and Awareness as a potential barrier

Again awareness about IUDs is high among the urban women compared to the rural women. Approximately 83 percent of the urban women know about the IUDs (Table 32).

Table 32. Percentage of Currently Married Women of Reproductive Age Who Have Heard of IUDs, Urban India, 1992-93 NFHS	
Unprompted	50.2
Prompted	32.8
Total	83.1

In the urban areas, only one-third of married women know how the IUD is used or inserted.[34] Although, this knowledge is higher compared to the rural areas, it still poses a major barrier to expansion of IUD use.

3. Attitudes and Perceptions as Potential Barriers

As discussed in the rural sector, the majority of current IUD users do not associate IUD use with side-effects.[35] However, some data[36] suggest that the non-users of IUD have concerns and apprehensions about the side effects of this method.

4. Availability as a Potential Barrier

Currently available data do not provide information on the availability of IUDs in the market or on perceptions of availability.

5. Price as a Potential Barrier

As discussed in the rural sector analysis, price represents a barrier to increased use of the IUD in the private sector.

6. Policy Environment

The two major policy level constraints include: advertising after 23:30H; and 10 percent excise tax on packaging.

[34] Khan and Patel, 1993
[35] 1992-93 NFHS
[36] SRI focus group discussions in UP held in 1993

7. Summary of Potential Barriers and Non-barriers

Based on available information the analysis finds that the following are potential barriers to expanded IUD use:

- Price (private sector)
- Concerns about side-effects among non-users
- Policies (advertising restrictions and tax)

8. Marketing Implications

- Develop well focused method-specific advertising campaign that addresses the most common concerns about IUDs
- Lower price through negotiations with manufacturers and providers (for insertion) and elimination of excise taxes on packaging
- Work with government officials to remove advertising restrictions

G. Injectables: Rural Sector

1. Current Use of Injectables

Table 33 shows the percentage of currently married women who have ever used injectables as estimated by the 1992-93 NFHS. It should be noted that concerns about the accuracy of these estimates exist among some analysts because the Hindi word for injection (sui) is the same as the word for IUD insertion, and the extent to which NFHS interviewers adequately probed to distinguish the two interpretations of the word is uncertain. Thus, the results in Table 32 may represent an overestimate of actual use of injectables in India.

Table 33. Percentage of Currently Married Women of Reproductive Age (MWRA) Who Have Ever Used Injectables, Rural India, 1992-93 NFHS.

Current Use	---
Ever Used	0.2

--- Less Than 0.05 percent

Data from the 1992-93 NFHS on source of supply of injectables is based on 25-49 unweighted cases and therefore should be interpreted with caution. Data on source of supply for injectables by residence is not available. Overall, 55 percent of women reported to have received their injections from public sector.

2. Knowledge and Awareness as a potential barrier

Table 34 presents the NFHS results on knowledge about injectables among rural women. Again, these results must be interpreted with caution given the potential confusion during the interview over the meaning of the word "sui". The data in the table indicate that awareness of injectables as a method to prevent pregnancy is 17.2 percent. This level of awareness can be considered high given that the method is not widely available. Nevertheless, the fact that the vast majority of women in rural areas have never heard of injectables suggests that lack of knowledge and awareness are barriers to increased use.

Table 34. Percentage of Currently Married Women of Reproductive Age Who Have Heard of Injectables, Rural India, 1992-93 NFHS

Unprompted	3.8
Prompted	13.4
Total	17.2

Available data from 20 focus group discussions conducted by SRI (1995) in Uttar Pradesh suggests that incorrect knowledge of injectables is prevalent among men and women. SRI reports that "the popular notion was that the injectable provided five years of protection from pregnancy".

3. Attitudes and Perceptions as Potential Barriers

Representative data on attitudes and perceptions of injectables are non-existent. However, focus group discussions conducted by SRI (1995) provide information on some of the concerns that women and men have about this method in Uttar Pradesh. SRI reports that in 15 out of the 20 group discussions held, "injectable contraceptives found mention". With respect to perceptions about side effects they report the following:

> Adverse side effects of injectables were mentioned in only two (out of 20) discussions. The urban men in Oudh (Gonda) believed that the use of injectables could cause weight gain, while the rural women in Rohelkhand (Barielly) believed that injectables are not suitable for everyone. They also believed that injectables were harmful because the injectable stops the menstrual cycle, and they were of the opinion that hindering a natural process would be detrimental to the health of the woman (SRI 1995)..

With respect to perceptions about availability, SRI reports that

> In two (out of twenty) group discussions,...it was mentioned that injectables were not yet available in their area. A few respondents believed that injectables were available in bigger cities such as Lucknow, Jaipur and New Delhi. Interestingly, in one of the discussion in urban Bhojpur (Varanasi), a man mentioned that one or two women in his area had gone to some health service providers to receive injectable contraceptives, but when he approached the private doctors in his area, he was told that these were not available. The respondent believed that the doctors were deliberately withholding information about the injectable as they wanted people to have children since otherwise their income would be adversely affected.

4. Availability as a Potential Barrier

Currently available data do not provide information on the availability of injectables in the market, however it is generally understood that the injectable is not yet widely available. Thus, availability presents a barrier to increased use of this method.

5. Price as a Potential Barrier

Current price is likely to serve as a barrier to increased use of this method. Currently Noristerat sells for Rs.140 MRP and Depo-Provera is available for Rs.150. This price does not include the price of the injection service which ranges from Rs.50 - Rs.150.

6. Policy Environment

There are several policy level constraints that effect the availability, promotion and price structure of injectables:

- Strong opposition by some feminist groups to the method. Some women's groups have opposed the method in India due to concerns about side effects and the following misconceptions about the method: 1) the injectable is not widely used in developed countries; 2) it has carcinogenic effects; 3) it has a long term impact on fertility; 4) proper screening and counseling cannot be done within the Indian context and infrastructure
- Advertising restricted to after 23:30H.
- The Government of India has not approved the method for public sector distribution
- 10% excise tax on packaging

7. Summary of Potential Barriers and Non-barriers

Based on available information the analysis finds that the following are potential barriers to expanded use of injectables:

- Awareness
- Price
- Availability
- Policies (opposition among key influentials, advertising restrictions, government approval for public sector distribution and tax)

Available data do not allow an assessment of perceptions of injections as a potential barrier to the increased use of injectables as a category. However, information from focus group discussions suggest that some concerns about side effects about this method exist and will need to be addressed in order for the method to appeal to potential users.

8. Marketing Implications

- Develop a strong advertising campaign that will educate consumers about the convenience, safety and effectiveness of injectables
- Address concerns of key influentials (e.g., feminist groups) through a well planned media and PR campaign to promote correct information and dispel myths and rumors

- Train providers so that they may provide proper screening and counseling.
- Lower price through negotiations with manufacturers and elimination of excise taxes on packaging
- Work with government officials to remove advertising and distribution restrictions

H. Injectables: Urban Sector

1. Current Use of Injectables

Table 35 shows the percentage of currently married women who have ever used injectables as estimated by the 1992-93 NFHS.

Table 35. Percentage of Currently Married Women of Reproductive Age (MWRA) Who Have Ever Used Injectables, Urban India, 1992-93 NFHS.	
Current Use	---
Ever Used	0.3

--- Less Than 0.05 percent

Data on source of supply for injectables by residence is not available. Overall, 55 percent of women reported to have received their injections from public sector.

2. Knowledge and Awareness as a potential barrier

According to the NFHS results, awareness about the method is higher in urban areas compared to the rural areas. Twenty-five percent of the married women reported to have known the injectable as a method to prevent pregnancy (Table 36). However, these results must be interpreted with caution given the potential confusion during the interview over the meaning of the word "sui". This level of awareness can be considered high given that the method is not widely available. Nevertheless, the fact that the vast majority of women in urban areas have never heard of injectables suggests that lack of knowledge and awareness are barriers to increased use. However, focus group data show that incorrect knowledge of injectables is prevalent among men and women.[37]

Table 36. Percentage of Currently Married Women of Reproductive Age Who Have Heard of Injectables, Urban India, 1992-93 NFHS	
Unprompted	8.2
Prompted	16.9
Total	25.2

[37] SRI focus group discussions in UP held in 1993

3. Attitudes and Perceptions as Potential Barriers

As discussed earlier in the rural sector analysis, representative data on these subjects is not available.

4. Availability as a Potential Barrier

As is the case with the rural sector, available data do not provide information on the availability of injectables in the urban market. However, it is generally understood that the injectable is not yet widely available. Thus, availability presents a barrier to increased use of this method.

5. Price as a Potential Barrier

Current price is likely to serve as a barrier to increased use of this method.

6. Policy Environment

There are several policy level constraints that effect the availability, promotion and price structure of injectables. These include: strong opposition by some feminist groups to the method; advertising restrictions; GOI policy of not providing this method in public sector outlets; and excise tax.

7. Summary of Potential Barriers and Non-barriers

Based on available information the analysis finds that the following are potential barriers to expanded use of injectables:

- Awareness
- Price
- Availability
- Policies (opposition among key influentials, advertising restrictions, government approval for public sector distribution and tax)

8. Marketing Implications

The marketing implications are similar for both the urban and rural areas and include:

- Develop a strong advertising campaign that will educate consumers about the convenience, safety and effectiveness of injectables

- Address concerns of key influentials (e.g., feminist groups) through a well planned media and PR campaign to promote correct information and dispel myths and rumors
- Train providers so that they may provide proper screening and counseling.
- Lower price through negotiations with manufacturers and elimination of excise taxes on packaging
- Work with government officials to remove advertising and distribution restrictions

IV. MEDIA ASSESSMENT

The Indian marketplace offers unique challenges for any marketing activity. Its size and complexity coupled with the enormous growth of private sector economic activities in recent years have resulted in fierce and growing competition among consumer products. As a consequence, family planning messages must aggressively compete for consumer "mindshare". If the market for family planning products and services is to grow and flourish, development and placement of media messages must be sophisticated, memorable, and well-targeted.

As the previous section discussed, some of the key potential barriers to greater temporary method use in India include lack of awareness, incorrect knowledge, and myths and rumors about various contraceptive methods. These are all issues that a mass media campaign is particularly well suited to address. This section assesses the different media options in India in terms of their cost and ability to reach the consumer. The section focuses primarily on the conventional media, but also provides some discussion of non-conventional media options.

CONVENTIONAL MASS MEDIA

Table 1 shows the reach of different types of media according to a national survey conducted by ORG in 1995 for the Media Research Users Council (ORG/MRUC). The table shows that 85 percent of urban India and 49 percent of rural India can be reached through some form of mass media. Television is the medium with the greatest reach in both rural and urban sectors.[38] After television, the medium with the broadest reach is radio in rural areas and the press in urban areas. Radio and cinema have the lowest levels of reach in urban areas (27 percent and 26 percent respectively). In rural areas, the cinema and the press have the lowest levels of reach (15 percent and 12 percent respectively).

Table 2 shows a similar pattern of media reach among adults aged 15-55 with monthly household incomes of Rs. 2000+. Within this population, television has the greatest reach in both rural and urban areas, followed by radio in rural areas and the press in urban areas. Again, in urban areas radio and cinema have the lowest level of reach. In rural areas, the press and cinema again have the lowest levels of reach.

Table 1. Percent Reach of the Media by Media Type, Adults Aged 15-55

	Any Media	TV	Radio	Press	Cinema
Urban	85	74	27	47	26
Rural	49	32	22	12	15

Source: ORG/MRUC, 1995

[38] Although television ownership is limited (about 40%, according to a recent 1996 Gallup Poll), it is growing quickly and viewership penetrates to many non-owners.

Table 2. Percent Reach of Media by Type of Media, Adults Aged 15-55 with Monthly Household Incomes of Rs. 2,000+ by Residence					
	Any Media	TV	Radio	Press	Cinema
Urban	94	87	28	63	25
Rural	74	58	31	26	17

Source: ORG/MRUC, 1995

Table 3 shows the reach of the media by type and town-size within the urban and rural sectors.[39] The data in this table show the same media reach pattern within rural and urban towns of different sizes as within the rural and urban categories as a whole. Specifically, television maintains the broadest reach of any medium regardless of town size in rural and urban areas. Within urban towns of all sizes, the press has the second broadest reach. Within rural towns of all sizes, radio has the second broadest reach. Radio and cinema consistently have the lowest reach in urban towns, while the press and the cinema consistently have the lowest reach in rural towns. With the exception of the cinema and radio in urban areas, the reach of all types of media declines as the size of the town decreases.

Table 3. Percent and Number (in Millions) of Persons Reached by Media by Type of Media and Town Size, Adults Aged 15-55											
Media		Urban						Rural			
		Urban Total	10 Lakh+	5-10 Lakhs	1-5 Lakhs	50,000-1 Lakh	<50,000	Rural Total	> = 5,000	1,000-4,999	<1,000
Press	%	47.9	56.0	51.9	48.0	44.0	36.4	12.6	23.1	12.1	6.4
	#	104	n.a.	n.a.	n.a.	10	19	79	n.a.	n.a.	n.a.
T.V.	%	74.1	84.7	78.7	74.9	69.7	58.5	31.5	37.2	33.0	24.4
	#	161	n.a	n.a.	n.a.	16	30	197	n.a.	n.a.	n.a.
Radio	%	25.4	29.3	22.3	24.6	22.0	23.6	20.6	27.6	20.2	17.3
	#	55	n.a.	n.a.	n.a.	5	12	129	n.a.	n.a.	n.a.
Cinema	%	23.3	22.7	21.9	25.7	26.6	21.1	12.7	20.5	12.7	7.1
	#	51	n.a.	n.a.	n.a.	6	11	80	n.a.	n.a.	n.a.

Source: ORG/MRUC, 1995

Table 4 shows the average duration of exposure to television, radio and the press in minutes for all-India by day of the week according to the ORG/MRUC survey. On average, television yields the highest level of daily exposure, followed by radio, and then the press. Television viewers spend about an hour and a half per weekday, on average, watching television. By contrast, those who listen to the radio spend, on average, a little over an hour per day listening to the radio and those who read the press do so for about half an hour, on average, per weekday. This research, conducted by National Rural Studies Council (1995), is corroborated by research conducted by ORG/MRUC (1995).

Consistent with the information above on reach and exposure, television also receives the highest rating from condom retailers in terms of perceived effectiveness for condom advertising (see Table 5). Nevertheless, the importance that condom retailers assign to television relative to other

[39] The urban-rural distinction for towns with fewer than 50,000 inhabitants but greater than 5,000 inhabitants is not specified by ORG/MRUC.

media *does* vary across rural and urban sectors. Far more urban retailers rank television as the most important medium (47.6 percent) than any other medium. By contrast while 28.9 percent of rural condom retailers rank television as the most important medium, nearly as many rural retailers (27.6 percent) cited radio as the most effective medium. This finding is consistent with the finding in Table 1 that in rural areas, radio is a relatively close second to television in terms of its reach.

Table 4. Average Exposure to Media In Minutes Per Day, Adults Aged 15 Years and Above.

MEDIUM	AVERAGE EXPOSURE PER DAY (In minutes)	DAY	BASE
Television	147 94	Sun/ Holiday Weekday	All TV Viewers
Radio	68	Daily	All Radio Listeners
Press	43 37	Sun/ Holiday Weekday	All Press Readers

Source: National Rural Studies Council (1995).

Table 5. Percentage of Condom Retailers Who Rank Medium as Most Effective for Advertising Condoms: Haryana, Rajasthan and Uttar Pradesh, 1993.*

	Total	Urban	Rural
TV	37.2	47.6	28.9
Posters	23.6	20.0	26.4
Radio	19.3	8.8	27.6
Hoarding	8.9	5.7	11.5
POP Materials	6.2	9.3	3.8
Press	4.0	6.9	1.8
Neon Signs	0.8	1.7	0.0

Source: Condom Retailer Survey, ORG/FHI 1993. * Among retailers stocking condoms

Taken together, the data indicate that the use of television will be key to the development of a communications campaign for temporary methods in both rural and urban settings. The data also highlight radio as an important secondary medium in rural areas. Below, we present more detailed information on these two media types with respect to the reach of specific channels and cost.

Television Channels

The national broadcaster, Doordarshan, through its national network channel (DDI), broadcast terrestrially, reaches 86 percent of the target audience (see Table 6). It's Metro Channel (DD2), which covers 45 towns terrestrially, reaches 33 percent of the target audience, which is concentrated in the metros and large towns. Cable and Satellite, again concentrated in metros and large towns, has a reach of 28 percent. Note that since there are over 30 cable and satellite options, cable and satellite reach is quite fragmented.

Table 6. Percent Reach of Television Channels

Doordarshan (National Channel)	86%
Doordarshan (Metro Channel)	33%
Cable and Satellite	28%

Source: 1995, ORG / Media Research Users Council (MRUC)

Reach of Radio Channels

Radio reach is almost exclusively provided by the national broadcaster All India Radio (AIR). There is insignificant listenership of external broadcasts, such as the BBC and the VOA. The commercial service of AIR, Vividh Bharti, is broadcast from slightly over 90 locations across the country in metro and other large towns with high accent on entertainment, and enjoys a 20 percent reach (see Table 7). The primary channel uses nearly 100 transmitters spread across the country with high rural coverage, and programming is geared more towards information and education than entertainment. Listenership of English programs is very low and confined to metro areas, particularly the FM channel which is currently in 5 metropolitan areas. A strong advantage of radio as a secondary medium is its ability to broadcast programming and commercials in local languages and dialects.

Table 7. Percent Reach of Radio Channels	
Vividh Bharti (Commercial Channel)	20
Primary Channel	16
FM	2

Source: 1995, ORG / Media Research Users Council (MRUC)

Rates

Mass media in India is expensive in absolute terms, but perhaps not so expensive when the breadth of its reach is taken into account. A national television buy costs approximately $15,000 per 30-second spot. A modest annual budget for television (one spot per week) will thus cost approximately $780,000. A stronger media schedule (approximately two spots per week) will cost over $1,500,000.

Radio is much less expensive per spot, but to achieve national reach, time on approximately 200 stations will have to be bought. In addition, given the nature of radio as a non-intrusive medium, a very heavy schedule of spots is needed to achieve impact. A very general rule of thumb is to run six to seven radio ads in order to equal one television ad. Buying time on all 139 of the Vividh Bharti and Primary Channel stations (one 30-second spot) will cost almost Rs. 90,000 – approximately Rs. 650 per station per spot. A national radio buy, including about 200 stations, and averaging about 2 spots per day will cost at least $400,000. Note that because the cost of producing radio commercials is relatively low, it can be used as an effective and relatively inexpensive medium to tailor language-specific messages to specific regional target audiences.

NON-CONVENTIONAL MEDIA

Despite conventional media's high reach, much of this is concentrated in urban areas. In rural areas, approximately 50 percent of the population is not exposed to any conventional mass media. For this reason, many national advertisers who wish to reach rural audiences have used non-conventional approaches. One of the most popular is the Cinema Van, or "Video on Wheels".

There are two syndicated systems, Video on Wheels (VOW) and Rural Communications and Marketing (RCM) which accepts advertising. While this is an excellent medium for reaching remote rural areas, there is not an adequate system for controlling and monitoring implementation. Corporations have been using these media for many years but many large corporations (e.g., Unilever) use their own video van system, which guarantees control and monitoring. Cinema Vans, Video on Wheels or Frontier Extension Vans cover 5 to six villages in a working day, reaching the site of *Haat* (Weekly Market) by the afternoon. In the *Haat* it performs two functions; communication through audio visual programs and a setting up a booth which displays and makes the advertised products readily available. While covering each village it runs audio visual programs for communication and through interpersonal efforts of its operating staff which sells the products to the interested outlets of the village.

DISTRIBUTION AND COMMUNICATION OBJECTIVES

The target for the PACT-CRH project is to achieve extensive distribution (penetration of the market). To develop an effective distribution strategy, it is important to be as specific as possible with respect to distribution targets and with respect to how efficiently television and radio can support those targets. Distribution and media coverage objectives are proposed as follows:

Distribution objectives:

Phase 1 - To reach Class 1 towns (100,000 and above) and Class 2 towns (50,000-100,000)
Phase 2 - To reach Class 3 towns (20,000-50,000)
Phase 3 - To reach Class 4 towns (10,000-20,000)
Phase 4 - To reach Class 5 towns (5,000-10,000)

Table 8. Percent Reach of Television by Town Size (Based on Reach Presented in Table 3):

	Phase 1	Phase 2	Phase 3	Phase 4
Class 1 Towns	84.7%			
Class 2 Towns	69.7%			
Class 3 Towns		58.5%		
Class 4 Towns			58.5%	
Class 5 Towns				58.5%

MEDIA SURVEYS

Key sources of information that will provide good guidance on media matters are the following:

- IMRB conducted a National Readership Survey (NRS) in 1995 (next survey will be in 2000)

- IMRB conducts TRP television ratings weekly. These ratings show viewership of shows/programs and can be broken down by major metro and mini metro areas as well as by target audience

- MRUC, composed of ad agencies and market research organizations, conducted an India Readership Service (IRS) in 1995 (next survey will be in 2000)

The National Council of Applied Economic Research (NCAER) conducted a major study in 1995 which gives broad demographic information as well as specific consumer information such as television ownership and penetration of product use by audience.

REFERENCES

International Institute for Population Sciences. 1995. *National Family Health Survey*. Bombay: IPPS.

Khan, M.E. and Bella C. Patel. 1993. *Review of Family Planning in Uttar Pradesh: A synthesis Paper*. India: The Population Council.

Marketing and Research Group Pvt. Ltd. (MARG). 1996a. *Project Buss: Report for Study on Contraceptives in U.P., India*. New Delhi: Marg.

Mauldin, Parker, Javid Ahmed, and Jesse Brandt. 1995. *Contraceptive Requirements and Logistics management Needs in India*. New Delhi: UNFPA/Unpublished.

Measham, Anthony R. and Richard A. Heaver. 1996. *India's Family Welfare Program: Moving to a Reproductive and Child Health Approach*. Washington, D.C.: The World Bank.

Measham, Anthony R. and Richard A. Heaver. 1996. *Supplement to India's Family Welfare Program: Moving to a Reproductive and Child Health Approach*. Washington, D.C.: The World Bank.

Ministry of Health and Family Welfare (Mishra, S. B. and Narasimhan, Shri R. L.). 1993. *Year Book 1992-1993*. New Delhi: Ministry of Health and Family Welfare.

Ministry of Health and Family Welfare 1997. Information taken from the following Table provided to SOMARC by the MOHFW: *All India Figures for Free, Contraceptive Social Marketing Programme (Including PSI) and Commercial Distribution of Condoms and Oral Contraceptive Pills.*

Operations Research Group (ORG) and Family Health International (FHI). 1993. *Social Marketing of Condoms in India*. New Delhi: ORG.

Samara, Renee, Bates Buckner, and Amy Ong Tsui. 1996. *Understanding How Family Planning Programs Work: Findings from Five Years of Evaluation Research*. Washington, D.C.: USAID.

Social and Rural Research Institute (SRI). 1995. *Contraceptive Methods in Uttar Pradesh: An Exploratory Study of Consumer Attitudes and Behavior*. New Delhi: SRI.

Stover, John, Jane T. Bertrand, Susan Smith, Naomi Rutenberg, and Kimberly Meyer-Ramirez. 1996. *The EVALUATION Project: Empirically Based Conversion Factors for Calculating Couple-Years of Protection.* Chapel Hill, NC: Carolina Population Center.

United Nations: Department for Economic and Social Information and Policy Analysis. 1995a. *World Population Prospects: The 1994 Revision.* New York: United Nations.

United Nations: Department for Economic and Social Information and Policy Analysis. 1995b. *World Urbanization Population Prospects: The 1994 Revision.* New York: United Nations.